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By AMY ELIZABETH POPE

ESSENTIALS OF DIETETICS

A QUIZ BOOK FOR NURSES

ANATOMY AND PHYSIOLOGY FOR NURSES

MEDICAL DICTIONARY FOR NURSES

(WITH ANNA CAROLINE MAXWELL)

PRACTICAL NURSING

A Medical Dictionary for Nurses

Giving the
Definition, Pronunciation, and Derivation
of Terms Used in Medicine, together with Supple-
mentary Tables of Weights, Measures, Chemical
Symbols, etc., Arranged with Special
Reference to Use by Nurses

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PREFACE

THE purpose of this book is to provide a medical dictionary containing a detailed definition of words and terms of special importance to nurses. To do this without making the book larger than seemed advisable, it was necessary to omit some words usually included in medical dictionaries, but those omitted are ones which nurses are not likely to look for or which are similar to those contained in the book, and a number of prefixes and suffixes are inserted, both in alphabetical order and in a table on page 272, which will facilitate the understanding of words omitted because of their similarity to those included.

In compiling the definitions a larger number of the newer books on bacteriology, chemistry, physics, physiology, and medicine were consulted.

My thanks are due to the publishers who suggested the compiling of this book to me and who have given me much valuable assistance in its preparation.

AMY E. POPE.

September, 1914.

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A Medical Dictionary for Nurses

A

a. An abbreviation for anode.
A symbol for argon.

a-. A prefix signifying without or want of.

\overline{AA} or \overline{aa} (Gr. *ana* = of each).
An abbreviation used in writing prescriptions, signifying of each.

ab-. A Latin prefix meaning from.

abaissement *ah-bās'-mon(g)* (Fr. *abaisser* = to lower). Depression, lowering.

abate (Fr. *abattre* = to beat down).
To lower, to lessen.

abattoir *ab-at-wor'* (Fr. *abattre* = to beat down). A building where cattle are slaughtered.

abbre'viate (Lat. *ad* = to and *brevis* = short). To shorten.

abdo'men (Lat. *abdere* = to hide).
That portion of the body lying between the thorax and the pelvis. The abdominal cavity is the largest cavity of the body. It is lined with a serous membrane called the *peritoneum*. It contains the liver with the gall-bladder under its right lobe, the stomach, the pancreas, the spleen, the two kidneys, the two ureters, the bladder, and the intestines. For convenience in the description of the location of the viscera, the ab-

domen is artificially divided into nine regions by four imaginary lines. The names of these regions are as follows: (1) *right hypochondriac*, (2) *epigastric*, (3) *left hypochondriac*, (4) *right lumbar*, (5) *umbilical*, (6) *left lumbar*, (7) *right inguinal*, (8) *hypogastric*, (9) *left inguinal*. The location of these regions can be seen in Fig. 1.

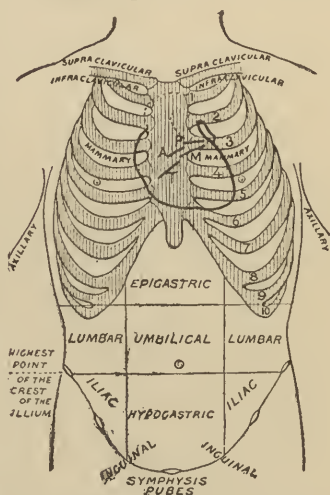


Fig. 1.—Diagram of Thoracic and Abdominal Regions.

- A. Aortic valve.
- M. Mitral valve.
- P. Pulmonary valve.
- T. Tricuspid valve.

abducens *ab-du'-senz* (Lat. *abduce* = to lead away). (1) The external rectus muscle of the eye. (2) The sixth cranial nerve.

abdu'cent. Abducting.

abduc'tion (Lat. *ab* = from and *ducere* = to lead). (1) Movement from the median line of the body. (2) The act of turning outward.

abduc'tor. A muscle or nerve that causes abduction.

aberra'tion (Lat. *ab* = from and *errare* = to wander). Deviation from a type or course or a normal condition. Mental derangement.

abey'ance (Fr. *bayer* = to gape). Quiescence. A temporary suspension of activity.

abir'ritant (Lat. *ab* = from and *irritans* = irritating). Lessening irritation.

ablate' (Lat. *ablatus* = to remove). To remove. To amputate.

ablu'ent (Lat. *ab* = from and *luens* = washing). A detergent or cleansing agent.

ablu'tion (Lat. *ablutio* = washing). The process of washing.

abnor'mal (Lat. *abnormis* = without rule). Not according to the usual condition.

abor'tion (Lat. *aborior* = to disappear). (1) Expulsion of a fetus before it is viable. If abortion is induced in order to save the life of the mother it is termed **justifiable** or **therapeutic** abortion. If it is induced when not necessary for therapeutic purposes, it is called **criminal abortion** or **feticide** and the act is a felony. When abortion occurs before the end of the fourth month of pregnancy it is called **embryonic abortion**; when it occurs after the fourth month it is known as **fetal abortion**; when it happens after the sixth month

it is sometimes spoken of as **premature birth**. (2) The non-development of an organ. (3) Stoppage of either a normal or morbid process.

abra'sion (Lat. *abrasio* = to scrape away). (1) A rubbing off. (2) A spot from which skin or mucous membrane has been rubbed off.

ab'scess (Lat. *abscessus* = a going apart). A localized gathering of pus in a tissue or an organ of the body. **Cold a.**, one that develops slowly and is attended with but little inflammation.

abscis'sion (Lat. *ab* = from and *scindere* = to cut). Removal of a part.

ab'sinthe. A cordial containing oil of wormwood.

ab'solute (Lat. *absolvo* = to loosen from). Uncontrolled; uncombined; entire.

absor'bent (Lat. *ab* = from and *sorbere* = suck). Imbibing; taking up by suction; an organ or substance that absorbs; a drug that promotes absorption.

absorp'tion (Lat. *absorptio* = a drink). (1) The taking up of fluids or other matter by the body tissues. (2) The taking up of fluids by a porous solid. (3) Absorption of heat—the taking up and consequent disappearance of rays of heat as they pass through a body colder than themselves. (4) Absorption of light: when rays of light strike the majority of substances some rays are absorbed and others are reflected. If all are absorbed, the object will be black; if all are reflected, the object will be white; but when some rays are absorbed and others are reflected the object is one of the bright colors, which one

depending upon the colors that it does reflect and absorb; e.g., a body will be red if it reflects red light and absorbs the lights of other colors. See Light.

absorptiometer (absorption and Gr. *metron* = a measure). An instrument used for measuring the thickness of liquid that has been drawn between two glass plates by capillary attraction.

abstemious (Lat. *abs* = from and *temum* = strong drink). Moderate in the indulgence of the appetites or passions.

abstergent (Lat. *abs* = from and *tergo* = to rub off). A cleansing agent.

abstinence (Lat. *abstinentia* = abstinence from anything). Voluntarily refraining from. Self-denial in food, drink, etc.

abstract (Lat. *abstractus* = dragged away). A powder consisting of the soluble principles of a drug—obtained by evaporation—and milk sugar. An abstract is usually twice the strength of the original drug.

abstraction. (1) The withdrawing of one of the component parts of an ingredient from a substance. (2) To remove blood from the body. (3) Attention to some one particular idea.

abterminal (Lat. *ab* = from and *terminus* = end). Moving from the terminus or outer part toward the center, said of electric currents.

acacia *ah-kā'-she-ah*. (1) A genus of shrubs and trees of several species. (2) The gummy substance obtained from such trees, which is used in therapeutics as a demulcent.

acariasis *ak-ar-i'-a-sis* (Gr. *akari* = a mite or tick). A disease

caused by mites or the itch-insect.

accelerans (Lat. *accelerans* = hastening). A nerve which, when stimulated, quickens the action of the heart.

acceleration (Lat. *ad* = to and *celer* = swift). A quickening.

accentuation. With greater distinctness.

access (Lat. *accessus* = a going to, a coming to). The sudden attack of a disease.

accessory. Assisting.

acclimation, acclimatization (Lat. *ad* = to and Eng. *climate*). To become accustomed to a climate or conditions.

accommodation (Lat. *accommodare* = to adapt to). Adjustment, adaption. The word is more especially used in connection with the eye and vision. Accommodation being the term used to express the adjustment of the eye for viewing objects at different distances. The mechanism of adjustment is as yet imperfectly understood, but it is thought that when the eye is at rest, or fixed upon objects at a distance, the suspensory ligament of the eye exerts a tension on the crystalline lens which keeps it flattened, but when the eye becomes fixed upon objects near at hand—especially in such acts as reading, writing, or sewing—the ciliary muscle contracts and in doing so draws forward the choroid or outer coat of the eye and thus relaxes the tension of the suspensory ligament, in consequence of which the anterior surface of the lens becomes more convex. Such accommodation of the eye is necessary for the proper

focusing on the retina of the rays of light coming from objects.

accouchement *ak-koosh-mon(g)'* (Fr. *accoucher* = to deliver, to bring forth). Confinement, delivery in childbirth.

accoucheur *ak-koos-shur'*. An obstetrician.

accoucheuse *ak-koos-shu(r)z'*. Fem. of accoucheur. A midwife.

accrementa'tion (Lat. *ad* = to and *crescere* = to grow). The growth or enlargement of a body or process by the addition of tissue to its substance.

accre'tion (Lat. *ad* = to and *crescere* = to grow). (1) The growth of a body by means of additions of similar substance. (2) An accumulation. (3) Adherence of organs or tissues.

accumula'tion (Lat. *accumulatio*). (1) The act of amassing or heaping up. (2) The state of being heaped up.

accu'mulative. Having a tendency to accumulate. For a. action of drugs see Cumulative.

accu'mula'tor. An apparatus that stores up electricity.

A. C. E. mixture. An anesthetic mixture consisting of 1 part of alcohol, 2 of chloroform and 3 of ether.

acen'tric (Gr. *a* = not and *ken-tron* = the center of a circle). Not in the center—the word is often used in connection with nerve impulses that arise in the periphery, *i.e.*, the outer circumference of the body or an organ.

acephalia *ah-sef-a'-le-ah* (Gr. *akephalos* = headless). Without a head.

acer'bity (Lat. *acerbus* = bitter). Sour and astringent.

acetabulum *as-et-ab'-u-lum* (Lat. *acetabulum*). The socket or cavity into which the head of the femur—hip-bone—fits.

acetal *as'-et-al*. A drug used as a hypnotic, formed by the incomplete oxidation of alcohol. Dose, 1-3 drams.

acetanilid *as-et-an'-il-id*. A coal-tar product obtained by the action of glacial acetic acid on anilin. It is known also as *antifebrin*. It is antipyretic, analgesic, antiseptic, a cardiac depressant, and a hemostatic. Dose, 2-10 grains.

acetate *as'-et-ate*. A salt of acetic acid.

acetic *as-et'-ik acid*. (Lat. *acetum* = vinegar). A clear colorless liquid with an acid taste that is obtained by the destructive distillation of wood. Glacial acetic acid has 99 per cent acetic acid to one part of water; acetic acid is 36 per cent acetic acid; dilute acetic acid is 6 per cent acid. Vinegar contains about 6 per cent acetic acid.

acetone *as'-et-ōn*. (1) A colorless liquid obtained when wood is heated in the absence of air. It is inflammable. It is used as an anesthetic and in the preparation of other compounds, especially chloroform. (2) A volatile compound sometimes found in the urine of persons suffering with defective metabolism, and in that from normal persons during fasting. It is thought to be the result of the incomplete oxidation of fats and, some authorities consider, of proteins.

acetonuria *as-et-o-nu'-ria'h*. The presence of acetone in the urine.

acetum *as-et'-um*. Vinegar.

acetylene as-et'-i-lene. A colorless, inflammable gas formed by the incomplete combustion of coal gas.

ache. Pain, especially that of a continuous nature.

Achilles tendon. The tendon which attaches the gastrocnemious and soleus muscles to the heel bone. It was so-called because, according to fable, Achilles was killed by a wound made in this tendon by an arrow, shot by Paris, son of the Trojan king. The mother of Achilles, so fable states, had rendered him invulnerable, except in the heel by which she held him, by dipping him in the river Styx.

achromatic ah-kro-mat'-ik (Gr. *achromatos* = colorless). (1) Without color. (2) Color blind. (3) Containing achromatin.

achro'matin. A substance found in the nucleus of cells, it is not readily stained.

a'cid (Lat. *acidus* = sour). A sour substance that contains the element hydrogen and at least one other element. Acids will turn blue litmus and methyl orange, red. They unite with bases to form salts and water (*e. g.*, if hydrochloric acid— HCl —is added to sodium hydroxide— NaOH —the salt sodium chlorid— NaCl —and water— H_2O —will be formed; thus, $\text{HCl} + \text{NaOH} = \text{NaCl} + \text{H}_2\text{O}$). The majority of acids break down carbonates, such as baking soda, with the evolution of gas. **Binary** or **hydracids**, acids which do not contain oxygen. **Inorganic a.**, acids derived from minerals. **Organic a.**, acids derived from organic life—*i. e.*, vegetable or animal matter. **Ternary** or **oxyacids**, acids which contain oxygen. The binary acids are given

names consisting of the prefix hydro, the name of the second element, and the termination *ic*; *e. g.*, hydrochloric acid— HCl . Ternary acids are given names ending in the suffix *ic*, except when there are several acids containing the same elements, but different quantities of oxygen. In such case, the acid with the smallest quantity of oxygen is given a name terminating in the suffix *ous* and if there are more than two degrees of oxygenation, the prefix *hypo* is used for the acid with the least oxygen and the prefix *per* is used, in addition to the suffix *ic*, to signify an acid containing a greater amount of oxygen than that distinguished by the suffix *ic*. Thus hydrochloric— HCl —does not contain oxygen and is a binary acid; hypochlorous acid— HClO contains one atom of oxygen in each molecule of the acid; chlorous acid— HClO_2 —contains two atoms of oxygen; chloric acid— HClO_3 —three atoms, and perchloric acid— HClO_4 —contains four atoms.

acidimeter as-id-im'-e-ter. (Lat. *acidum* = sour and *metron* = measure). An instrument used in determining the amount of free acid in a solution.

acido'sis. Called also *acid intoxication*. A condition due to the presence of an abnormal amount of acid in the system as the result of faulty metabolism. It occurs more especially in connection with diabetes mellitus, cancer, and after the inhalation of large quantities of anesthetics such as ether and chloroform. Acids are being constantly formed in the body as the result of the

oxidation of substances derived from food and from the body tissues, but, under normal conditions, these acids are at once either still further oxidized and thereby broken down into simpler substances such as carbon dioxid and water, or else they unite with alkaline matter, as sodium and potassium, present in the body, and so form salts, which are excreted in the urine.

acidulate *as-id'-u-lāt*. To render sour.

acinetic *as-in-et'-ik*, **akinetic** (Gr. *akinētos* = motionless). Lack or loss of motion.

acinus *as'-in-us*, pl. **acini** (Lat. *acinus* = a grape). (1) The small lobules of compound secretory glands. (2) Small sac-like dilatations, such as the air sacs of the lungs.

acme *ak'-me* (Gr. *akmé* = a point or edge). The crisis of a disease.

acne *ak'-ne* (Gr. *akmé* = a point). An inflammatory disease of the sebaceous glands characterized by an aggregation of black-heads, small papules, and, sometimes, pustules around sebaceous glands, especially those of the face and neck. The condition is due to irritation resulting from retained sebaceous matter. Anemia, menstrual disorders and gastro-intestinal disturbances are predisposing causes. Also, acne follows the continued use of certain drugs as the iodids and bromids. **A. papulosa**, in this form of the disease, the lesions do not advance beyond the papular stage. **A. pustulosa**, a form of acne in which the papules develop into pustules. **A. indurata**, a type of the condition in which the inflammation is deeply seated and the base of the papule or

pustule is indurated. **A. atrophica** is a form of the disturbance in which the lesions are followed by scars. **A. hypertrophica** is characterized by an overgrowth of connective tissue and thickening of the skin. **A. rosacea**, a chronic affection usually located around the region of the nose and characterized by dilatation of the blood-vessels in the part, a marked hyperemia and acne lesions.

aconite *ak'-o-nūt*. A name of the common Blue Monk's-hood (*Aconitum napellus*), a very poisonous plant, preparations from which are used as medicine. Aconite is an analgesic, a cardiac sedative, a vasodilator, a diaphoretic, a respiratory sedative, an antipyretic, and a diuretic. The dose of the extract is $\frac{1}{8}$ - $\frac{1}{2}$ grain, of the fluid extract $\frac{1}{4}$ - 1 minim, of the tincture, 1 - 3 minims.

aconitin *ak-on'-it-in*. An alkaloid of aconite; it is obtained in both crystalline and amorphous form. The dose of the crystalline, is $\frac{1}{100}$ - $\frac{1}{200}$ grain, that of the amorphous, $\frac{1}{40}$ - $\frac{1}{16}$ grain. For poisoning see Table of Poisons.

acou'meter (Gr. *akouē* = hearing and *metron* = measure). An instrument for measuring the accuracy or acuteness of the sense of hearing.

acous'tic (Gr. *akoustikos*). Belonging to the sense of hearing.

acquired (Lat. *acquære* = to obtain). Contracted after birth, not congenital.

ac'rid (Lat. *acer* = sharp). Pungent, biting to the taste.

ac'rimony (Lat. *acrimonia*). Pungency, corrosiveness.

ac'rinyl sulphocyanate. A hot vesicating principle contained in white mustard.

acroblast *ak'-ro-blast* (Gr. *akron* = extreme point and *blastos* = germ). The external layer of the mesoblast, *i. e.*, the middle layer of cells into which the cells arising from a fecundated ovum become arranged.

acromegalia *ak-ro-meg-a'-lia* (Gr. *akros* = extremity and *megal* = large). A disease—usually associated with hypertrophy of the pituitary body—in which the bones and the soft tissues of the limbs and skull become enlarged. If it attacks a child at or soon after its birth, gigantism results.

acro'mion (Gr. *akron* = top and *omos* = shoulder). A prominent projection, on the summit of the spine of the scapula, which forms the point of the shoulder.

actinic *ak-tin'-ic* (Gr. *aktinos* = a ray of light). Pertaining to a ray or rays of light. The actinic rays of light are those which effect the chemical changes produced by the sun and other forms of light.

action (Lat. *actio*). The doing of a deed, the performance of a function. **Reflex a.**, involuntary action resulting from stimulation by motor nerve-fibers which have been activated by impulses transmitted from sensory fibers.

act'ivate. To render active.

ac'tol. A silver preparation that is used as an antiseptic.

actual (Lat. *actualis*). Real.

acu'ity (Lat. *acuitas* = sharpness). Acuteness of vision.

ac'upressure (Lat. *acus* = needle and *pressio* = pressure). Compression of a bleeding blood-vessel by the insertion of needles.

ac'upuncture (Lat. *acus* = needle and *punctura* = a prick). The

insertion of needles in the tissue in order to withdraw fluid or to produce irritation.

acute' (Lat. *acutus* = sharp). (1) Sharp, rapid. (2) A disease that runs a short course. Not ehronic.

ad. A Latin prefix signifying to.

ad., add. An abbreviation for the Latin *adde*, *add*, or *adduc-tur* which signify let there be added.

Adam's apple (Lat. *Adami* = man in general and *pomum* = apple. The protuberance on the fore part of the throat formed by the thyroid cartilage.

adaptation (Lat. *adaptare* = to fit). (1) The act of fitting to, becoming accustomed to. (2) The normal power of the eye to adjust itself to different intensities of light.

Addison's disease. A disease characterized by lesions of the suprarenal capsules or of the abdominal sympathetic ganglia and associated with bronzing of the skin, pigmentation of the mucous membrane, extreme weakness, and marked gastric disturbances. The disease is usually fatal within from one to three years.

aducens oculi *ah-du'-senz ok'-u-li*. The internal rectus muscle of the eye.

addu'cent (Lat. *adduco* = leading or drawing to). A term applied to muscles which cause adduction.

adduc'tion. The drawing of one part of the body toward another. Movement toward a center or the median line of the body.

adduc'tor. A muscle that performs adduction.

adenec'tomy (Gr. *adēn*=a gland and *ektoun*=excision). The removal of a gland.

aden'iform (Gr. *aden*=a gland and Lat. *forma*=shape). Shaped like a gland.

a'denin. One of the more complex ashes resulting from the oxidation of protein substances.

adenitis (Gr. *aden*=a gland and *itis*=inflammation). Inflammation of a gland.

adenocoele *ad'-en-o-sēl* (Gr. *adēn*=a gland and *kēlē* a tumor). A cystic tumor in a gland.

adenoid (Gr. *adēn*=gland and *eidōs*=form). (1) Resembling a gland. (2) Lymphatic tissue. (3) In the plural, hypertrophy of the adenoid tissue in the naso-pharynx of children.

adeno'ma. An innocent tumor composed of gland cells; it may occur in the skin, breast, or other glands.

adenomátome *ad-en-o-mat'-omē.* An instrument used in the removing of adenoid growths.

adenot'omy (Gr. *aden*=a gland and *temno*=to cut). The incision or dissection of a gland or glands.

ad'eps (Lat. *adipis*=lard). Lard.

adhe'sion (Lat. *adhesio*=to stick). (1) To stick together. (2) The abnormal joining of parts together. (3) **Primary a.**, the healing of a wound by first intention. **Secondary a.**, healing by granulation.

ad'ipose (Lat. *adeps*=fat). Fatty tissue. Of a fatty nature.

adnex'a. Appendages.

adon'idin. A glucoside of the drug Adonis vernalis. Dose, $\frac{1}{10}$ — $\frac{1}{3}$ grain.

ado'nis vernalis. A drug, the action of which is similar to digitalis. Dose of the fluid extract, 1-2 minims; of the tincture, 10-30 minims.

adre'nal (Lat. *ad*=near and *ren*=kidney). (1) Situated near the kidney. (2) The adrenals or suprarenal bodies are two flat or cocked hat-shaped glands which rest one upon either kidney. They produce a secretion that has been named *adrenalin*.

adrenal'in. (1) The internal secretion produced by the adrenals, the function of which is thought to be concerned with the maintenance of the tone of the blood-vessels and heart. It is not known if the maintenance of tone is effected by the direct action of the secretion on the tissues or if it is obtained indirectly by influencing the nerve-centers. (2) An extract obtained from the adrenal glands. It causes constriction of the blood-vessels and it is therefore used as a hemostatic—*i. e.*, to check hemorrhage—and in operations, especially those on the nose and throat, it is used to render the tissue bloodless; it causes a great rise of blood-pressure by its constriction action on the blood-vessels and thus acts as a heart stimulant; it checks secretions and is therefore used in rhinitis, hay-fever, etc. Dosage—dried gland, 3-8 grains; extract, $\frac{1}{4}$ -1 grain; adrenalin hydrochlorid 1:1000 solution—5-15 minims.

adter'minal. Passing toward the end of a muscle the expression is used in connection with electric currents.

adult (Lat. *adultus*=full grown, pa. par. of *adolesco*=to grow up). Grown to maturity.

advancement. An operation performed to relieve strabismus—squint—which consists in the detachment of an ocular muscle followed by its re-attachment at a point farther removed from its origin.

adventitia *ad-ven-tish'-e-ah* (Lat. *adventitia*). The outer coat of an artery.

adventitious *ad-ven-tish'-ous* (Lat. *ad*=to and *venire*=to come). (1) Out of place. (2) Acquired.

aër'ated (Lat. *aëratus*). Charged with air or carbon dioxid gas.

aëra'tion (Lat. *aër*=air). (1) Charging a liquid with air or carbon dioxid gas. (2) The arterialization of the blood in the lungs.

aë'rial (Lat *aër*=air). Pertaining to the air.

aëro'bic. Microorganisms that require air or oxygen. **Facultative a.**, those which can grow either in the presence or absence of air. **Obligate a.**, microorganisms which must have air in order to live.

aërogen *a-er'-ō-jen*. A gas-producing bacterium.

affection (Lat. *affectus*=state or disposition of mind or body). A disease or morbid condition affecting the body.

af'ferent (Lat. *ad*=to and *ferre*=to carry). Bringing to, carrying to—the term is used of nerves that carry impulses to the nerve-centers from the periphery, and of blood-vessels through which the blood flows to the heart, glands, etc.

affin'ity (Lat. *affinitas*=union). Attraction. **Chemical a.** The agency which causes substances to combine and which holds them together when combined. In some compounds, the chemical affinity of the elements for each other is not

very strong and such compounds are easily dissociated. In other compounds, the elements have such a strong affinity for each other that the substance can be only dissociated with the help of an agent such as electricity, heat, strong light, etc.

after-birth. The placenta with the umbilical cord and the membranes in which the fetus is enveloped while in the uterus and which are expelled after the birth of the child. Known also as the *secundines*.

after-pains. The pains which follow childbirth, due to contractions of the uterus.

a'gar-a'gar. A gelatinous substance obtained from certain varieties of Chinese seaweed. It does not liquefy at as low a temperature as gelatin and is therefore much used as a culture-medium in bacterial work and as a basis for suppositories, capsules, and the like.

aga'ricin. A drug derived from agaric, a species of mushroom. It checks secretions and is used to check night-sweats. Dose, $\frac{1}{4}$ –1 grain.

agent (Lat. *agens*=acting). Any substance capable of producing changes in the body.

agglu'tinant (Lat. *agglutinans*). (1) A viscous substance that causes adhesion. (2) Gluing together. (3) Same as agglutinin.

agglutina'tion. The act of gluing together.

agglu'tinin. Substances contained in the blood which cause bacteria to gather into masses or clumps. Normal sera contains small quantities of agglutinins, but they only exist in any amount as the

result of infection. Agglutinins are thought to be fairly specific in their action, but not as much so as antitoxins, since the agglutinin produced by some species of bacteria will cause the agglutination of several other microorganisms. It is not known if agglutinins possess any direct protective function, for it has been found that bacteria are not killed by agglutination and that they are often as virulent after agglutination as before.

ag'gregate (Lat. *ad*=to and *grex*=flock). Crowded or massed together.

a'gony (Gr. *agōnia*=anguish).

(1) Extreme pain or suffering.

(2) The death struggle.

agraphia *ah-gra'-fe-ah* (Gr. *a*=neg. *graphein*=to write). The form of aphasia which results in an inability to express thoughts in writing. The lesion causing the condition may be either in a part of the brain concerned with memory of words or in a part controlling the memory of the movements necessary for writing. The latter condition is called **motor agraphia**.

ague *a'-gu* (Fr. *aigu*=sharp).

(1) To tremble, to shake. (2)

Malaria or other form of intermittent fever. Ague-cake, enlargement of the spleen, due to malarial poisoning.

ailment. Sickness, disease, indisposition.

air (Lat. *aër*). The atmosphere.

Complemental a., the air in excess of the tidal air which may be drawn into the lungs by forced inspiration; this is about 1600 c.cm. (100 cubic inches). **Expired a.**, the air that is exhaled from the lungs. Under normal conditions it consists of about 79 per cent

nitrogen, 16.02 per cent oxygen, and 4.38 per cent carbon dioxide, by volume. **Inspired a.**, air that is taken into the lungs; it should consist of about 79 per cent nitrogen, 20.96 per cent oxygen, 0.04 per cent carbon dioxide and small amounts of argon, etc. **Liquid a.**, air that is liquefied by means of great pressure. If liquid air is allowed to escape from its containing vessel, it will at once evaporate and, as it requires heat in order to do this, it will take the heat from whatever it comes in contact with, consequently, it will freeze anything left exposed to its influence. **Reserve a.**, air remaining in the lungs after a normal expiration. The average amount of reserve air in the adult is about 1600 c.cm. (100 cubic inches). **Residual a.**, air that remains in the lungs after the strongest possible expiration; this amounts to, in the adult, about 1600 c.cm. **Supplemental a.**, same as reserve a. **Tidal a.**, the air that is taken into, and given out of, the lungs at each respiration; this is about 500 c.cm. (30 cubic inches).

akine'sia. Lack or loss of motion.

al'binism (Lat. *albineus*=whitish). A deficiency of pigment in the tissues. The state of an albino.

albi'no. A man or animal that has a congenital deficiency of pigment. If albinism is complete, the skin is white, the hair is thin, soft, and very light in color, the iris and choroid of the eye are deficient in color, the pupils may appear red, and the eyes are very sensitive to light.

al'bolene (Lat. *albus*=white and *oleum*=oil). An oily sub-

stance obtained from petroleum.

albu'min (Lat. *albus* = white).

An important nitrogenous substance that exists in nearly all animal and many vegetable tissues. It is soluble in water, in dilute saline solutions, and in concentrated solutions of sodium chlorid and magnesium sulphate. It is precipitated by saturating solutions in which it is contained with ammonia sulphate. Albumin is coagulated by heat and acid. Examples of albumin are: serum albumin of blood, egg albumin, lactalbumin of milk.

albu'minate. A compound of albumin and either an acid or an alkali. Called also *derived albumin* and *derived protein*.

albu'minoid. Resembling albumin. Gelatin is the albuminoid that occurs most frequently in food.

albuminu'ria. The presence of albumin in the urine. As a rule, the normal renal cells secrete only such substances as it is necessary for the body to get rid of and do not allow material that the body has need of, such as albumin, to pass through them, but when they become diseased, as in nephritis, they allow the albumin to escape in the urine. **Temporary a.,** the temporary presence of albumin in the urine. Occasionally, as after extreme muscular exercise or as the result of eating a large amount of protein food, the normal cells will allow some albumin to pass through them, also in fever there may be a temporary derangement of the kidney cells in consequence of which albumin may escape or, in such case, it may be

present without any lesion of the kidneys, simply as the result of the excessive amount of albumin in the blood due to the increased metabolism that occurs when the temperature is high.

al'bumose. A primary product of the splitting of proteins in digestion.

al'cohol (Arabie *alkohl* = sulphuret of antimony). Alcohols, of which there are many forms, are derived from the hydrocarbons, as methane, ethane, propane, etc., and from the carbohydrates, as starch, sugar, cellulose. Liquors containing ethyl or grain alcohol are generally prepared by the fermentation of grape sugar, obtained either from fruits or by a preliminary fermentation of starch by yeast. The wines contain only a low per cent of alcohol—2–20 per cent, and the stronger preparations—spirits—are made from them by distillation, which raises the percentage to 30–60 per cent and at the same time removes the non-volatile constituents. Pure alcohol is obtained from these spirits by repeated distillation and by special measures designed to remove the water. **Absolute a.** contains 99 per cent alcohol to 1 per cent of water. **Common a.** contains about 91 per cent alcohol, dilute alcohol contains 45.5 per cent alcohol. **Deodorized a.,** an alcohol from which all impurities have been removed; it contains 92.5 per cent alcohol and 7.5 per cent water. **Denatured a.,** alcohol to which some substance such as methyl alcohol, benzin, etc., has been added in order to render it unfit for a beverage, but not for external use or industrial

purposes. Alcohol is used externally as a preventative of bed-sores, because it dries and hardens the skin. Given internally, alcohol depresses the higher centers of the central nervous system, also it depresses the vaso-constrictor nerves in consequence of which the superficial blood-vessels are dilated, the circulation in the skin is improved, and congestion in the internal organs thus relieved. Alcohol causes a slight irritation of the membrane lining the stomach and consequently, if taken in small amounts and in dilute form, as in wines, it will increase the flow of gastric juice and the activity of the stomach and intestines. If alcohol is taken in large amounts, however, or in concentrated form, the irritation will prove too severe and gastritis may result. Alcohol is oxidized in the body in the same way as food-materials; its food value is about the same as that of fats. **Methyl a.**, this is made by heating wood in an air-tight retort. It is a colorless liquid and burns with an almost colorless light. It is a good solvent and this makes it of value in certain industries. It is sometimes used instead of ethyl alcohol for external use to prevent bed-sores, but it cannot be substituted for internal use as it is poisonous. The other alcohols are mainly of interest as impurities of ethyl alcohol. They resemble it in their general effect, but differ from it in toxicity. **Amyl alcohol** or fusil oil is present in most forms of spirits, especially when they are freshly distilled. It resembles ethyl alcohol, but is more irritant locally and is supposed to

have more deleterious effect in chronic poisoning.

al'coholism. A diseased condition caused by the excessive use of alcohol. The morbid desire for strong drinks.

aldehyd *al'-de-hīd* (Lat. *alcohol dehydratus* = dehydrated alcohol, *i.e.*, alcohol deprived of hydrogen). When alcohols are treated with certain oxidizing agents, two hydrogen atoms are removed from each molecule of alcohol and the resulting compounds are called *aldehyds*. If oxidation is continued, the aldehyd will be changed to an acid; thus aldehyds are intermediate products between alcohols and acids. The aldehyd resulting from the oxidation of ethyl alcohol is called *ethyl aldehyd* and the acid formed by the oxidation of the aldehyd is named *acetic acid*. The aldehyd arising from the oxidation of methyl alcohol is known as *formaldehyd* and the acid as *formic acid*.

aldehydase. A ferment of the liver which causes the oxidation of certain aldehyds that are formed in the body into their corresponding acids.

aleuke'mia (Gr. *a* = no, *leukos* = white, and *haima* = blood). A deficiency of white corpuscles in the blood.

Alexander's operation. Fixation of the uterus by shortening the round ligaments.

alex'ia (*a* = not and *lego* = to speak). A form of aphasia characterized by inability to recognize written or printed words.

al'gæ *al'-je* (Lat. for seaweed). Certain flowerless plants, such as seaweed, that grow both in salt and fresh water.

algid *al'-jid* (Lat. *algidus* = cold).

Cold, chilly.

ali'ble (Lat. *alibilis*). Nutritive.

alienation *āl-yen-a'shun* (Lat.

alieno = to estrange). Mental derangement, insanity.

a'lienist. An expert in the treatment of mental diseases.

aliment *al'-i-ment* (Lat. *alimentum* from *alo* = to nourish). Food.

alimen'tary. Pertaining to food or nourishment. **A. canal**, the canal which extends from the mouth to the opening leading from the rectum—the anus. It includes the mouth, pharynx, esophagus, stomach, small and large intestine.

al'kali (Arabic *al* = the and *kali* = plants which when burnt, leave a residuum of potash). A substance which when added to an acid neutralizes it, *i. e.*, forms a salt. Alkalies, which are sometimes termed *bases*, turn red litmus blue, red methyl orange, yellow; yellow tumeric, red; they turn phenolphthalein pink, and most purple dyes of vegetable origin, green. Alkalies have a soapy taste and form soaps with fats. Examples of alkalies are ammonia, potash, soda.

al'kaline. Having the reaction of an alkali.

alkalin'ity. Having the qualities of an alkali.

al'kaloid (Eng. *alkali* and Gr. *eidōs* form, appearance). (1) Resembling an alkali. (2) A group of nitrogenous compounds found in many plants and trees, the majority of which, like alkalies, combine with acids to form salts. Alkaloids are insoluble in water, but their salts are soluble and many of them are much used as medicine; *e. g.*, morphine sulphate—a

salt of morphine and sulphuric acid, quinine sulphate, strychnine sulphate, etc. **Animal a.**, a ptomain formed in decomposing animal matter.

allantois *al-an'-to-is* (Gr. *allantoides* = shaped like an *allas*, *i. e.*, a sausage-like piece of meat). The sac which in early fetal life surrounds the human embryo and later fuses with the membrane from which the placenta and chorion are derived.

allev'iate (Lat. *allevō* = to lighten). To mitigate, to lessen.

al'lopathy (Gr. *allos* = another and *pathos* = anything which befalls one, a passive state). The treatment of disease by medicine that induces a different action or condition in the body than that resulting from the disease.

allotox'in (Gr. *allos* = another and *toxikon* = poison). A substance formed in the body which neutralizes toxins, *i. e.*, poisons.

allotrop'ic. Existing in different states. Said of elements that form bodies having different properties; *e. g.*, the diamond and lamp-black are allotropic forms of carbon. Allotropism is due chiefly to differences in the arrangement of the atoms of an element in a body or to differences in the size and shape of the atoms.

al'loy. A mixture of a baser with a more precious metal.

all'spice, pimenta. A kind of pepper, consisting of the dried berries of *Pimenta officinalis*. It is used as a flavor and, medicinally, as a stomachic and carminative in dyspepsia and colic. Dose of fluid extract, 5–30 minims.

al'oes. A drug used as a cathartic, emmenagogue and vermi-

fuge. Dose of extract, 15-60 minims.

aloin *al'-o-in*. A purgative glucoside obtained from aloes. Dose, $\frac{1}{4}$ -2 grains.

al'um. A salt formed by the action of heat on alum salt and then purified. It is used locally as an astringent in sore throat, hemorrhages, etc., also it is used as an emetic. Dose of emetic, 1-2 drams. Called also potassio aluminum.

alumin'ium, alum'inum. A metallic element obtained from clay, that is much used for the manufacture of utensils. **A. acetate**, a salt of aluminum and acetic acid that is used as an astringent and as an antiseptic.

alve'olus pl. **alveoli** (Lat. *alveolus*=a little trough. (1) A bony socket of a tooth. (2) An air-sac of the lungs. (3) A small depression such as those contained in the gastric mucosa. (4) A follicle of a racemose gland.

amal'gam (Gr. *ama*=together and *gameo*=to marry). The alloy or union of any metal with mercury.

amal'gamate. (1) To form an amalgam. (2) To compound two things together.

amaurosis *am-au-ro'-sis* (Gr. *am-aurōsis*=a darkening). Blindness, especially that occurring as the result of such diseases as nephritis, diabetes, diseases of the brain, etc.

amblyopia *am-ble-o'-pia*. Dimness of vision due to diminished sensation of the retina.

amboceptor *am-bo-sep'-tor* (Lat. *ambo*=both and *capere*=to take). An element of the antibodies supposed to be in the blood-sera to protect the body from the action of bacteria. See Ehrlich's theory.

am'bulance. A vehicle for conveying the wounded and sick.

am'bulant, am'bulatory (Lat. *ambulans*=walking). Walking, able to walk. **A. typhoid fever**, a mild attack of typhoid fever, in which the patient is not confined to bed.

ame'ba (Gr. *ameibō*=to change). A small one-celled animal—protozoön—that constantly changes its shape by sending out processes of its protoplasm. It is by these processes, which are called *pseudopodia*, that the ameba moves about and obtains its nourishment. **A. dysentericæ**, a species of ameba that is thought to be the cause of amebic or tropical dysentery.

ame'bocyte. A leucocyte.

ame'boid. Resembling an ameba. **A. movement**, movements that resemble those of the ameba.

ame'lioration (Lat. *ad*=to and *melior*=better). To grow or make better. Improvement.

ame'nable (Lat. *ad*=to and *manus*=hand). Liable or subject to.

ame'loblast (Old French *amel*=enamel and Gr. *blastos*=germ). A cell from which tooth-enamel is developed.

amenorrhœ'a (Gr. *a*=no, *men*=month, and *rheo*=flow). Absence or abnormal suppression of the menses. Absence of menstruation is normal before puberty, after the menopause, during pregnancy and lactation. Some of the more common causes for its suppression at other times are change of climate and occupation, anemia, febrile diseases, and chronic diseases such as nephritis, tuberculosis, and diabetes.

amen'tia (Gr. *a*=neg. and Lat. *mens*=mind). Idiocy.

ametro'pia. Some imperfection in the refractive powers of the eye in consequence of which images are not focused properly on the retina. According to the nature of the trouble, the condition is known as *hypermetropia*, *myopia*, or *astigmatism*.

am'id. A simple compound derived from ammonia by the substitution of an acid radical for hydrogen.

am'i'do. A prefix used to denote that the substance indicated by the last part of the name is modified by the substitution of the radical NH_2 for hydrogen (H). See Radical.

amido-acids. Simple substances into which some of the protein matter of food is changed in the process of digestion.

am'in. A simple compound derived from ammonia by the substitution of an alcohol radical for hydrogen. See Radical.

amin'o-acids. Same as amido-acids.

ammon'ia. (The name, it is thought, came from Ammonium, the district in Libya where ammonia was first prepared.) A colorless alkaline gas that consists of nitrogen and hydrogen (NH_3) and is formed as the result of the decomposition of nitrogen containing compounds—*i. e.*, proteins—of both vegetable and animal matter. It is obtained: (1) from the liquor of gas-works, the coal, from which gas is made, being a complex compound derived from decayed vegetable life, it contains carbon (C), hydrogen (H), oxygen (O), and nitrogen (N), and when heated in a closed

vessel, from which air is excluded, about one-seventh of the nitrogen combines with hydrogen, forming ammonia. (2) Ammonia is obtained by the dry distillation of animal horns, hoofs, etc., hence its former name—spirits of harts-horn. (3) Ammonia can be prepared from ammonia compounds such as ammonium chlorid (NH_4Cl), a compound obtained in the manufacture of coal gas. **A. water**—ammonium hydroxid (NH_4OH), a solution of ammonia gas in water, it is largely derived from the ammoniacal liquid that is left after coal has given off the gas made for burning and illuminating purposes. **Uses of ammonia:** Medicinally, it is used externally as a counter-irritant, chiefly in the form of a liniment; it is given, by inhalation, in syncope, and various ammonia compounds are given internally to stimulate the heart action, as expectorants, and as antacids in dyspepsia. **Dosage:** Aromatic spirits of ammonia, $\frac{1}{2}$ –2 drams; ammonium bromide, 15–30 grains; ammonium carbonate, 5–30 grains; ammonium chlorid, 5–30 grains. Ammonia is used in the manufacture of artificial ice. It can be used for this purpose because it is easily liquefied by pressure and requires heat to change it back into its gaseous state. One method of making ice is boiling a concentrated solution of ammonia water in a large air-tight boiler. The heat splits the solution into ammonia gas and water and the pressure exerted by the gas thus evolved, in its effort to expand and escape, becomes so great that part of the gas is changed to liquid. This is

drawn off into pipes which extend into a tank containing brine. In the pipes, the gas is released from the pressure and at once begins to assume its gaseous condition. To do this it requires heat, which it takes from everything around, including large cans of water that have been placed in the brine solution, consequently, the water is changed to ice. Ammonia is used also as a detergent, for it softens water, dissolves grease, and removes dirt from clothes, etc., and, on account of its volatile nature, it does not remain in the fabric and is thus less destructive than soda.

am'monol. A coal-tar derivative that is used as an antiseptic, analgesic, and cholagogue. Dose, 5-20 grains.

amne'sia (Gr. *amnesia* = forgetfulness). Loss of memory, especially for words.

amn'ion (Gr. *amnion* = a bowl in which the blood of sacrificial victims was caught, dimin. of *amnos* = a lamb). The most internal of the fetal membranes; it contains the waters which surround the fetus while in utero and forms a sheath for the umbilical cord.

am'niotic. Pertaining to the amnion. **A. fluid**, liquor amnii, the albuminous fluid contained in the amniotic sac. **A. sac**, the bag or sac formed by the amnion. The principal purposes of this sac and fluid are: (1) To protect the fetus from blows, etc., that may be inflicted on the mother; (2) to allow it freedom of motion; (3) the fluid provides the fetus with water; (4) during labor, with each contraction of the uterus, the fluid distends the sac at the point of least resistance, which is,

naturally, in the cervical canal, thus a pouch is formed which assists in the dilation of the cervix; (5) on the rupture of the membranes, the fluid flushes the parturient canal, thereby cleansing, lubricating, and disinfecting it.

amor'phous *ah-mor'-fus* (Gr. *a* = no and *morphos* = shape). Without definite form.

am'pere (named after a French electrician). The unit of the strength of electric currents.

amphibia *am-fib'-iah* (Gr. *amphi* = both and *bios* = life). Vertebrate animals that can live both on land and in water, as the frog.

am'plitude. Width, breadth, extent, range, or fullness.

am'pule. A small glass that can be sealed and its contents sterilized. A French invention for containing hypodermic solutions; an ampule holds just sufficient solution for one injection.

ampul'la (Lat. *a nearly globular flask*, pl. *ampullæ*). Any rounded membranous bag, especially the dilations that occur in the semicircular canals of the ear.

amputa'tion. The removal of part of the body.

amyl *am'-il* (Lat. *amylum* = starch). A form of alcohol. There are several amyl compounds. One of the principal ones used in medicine is **amyl nitrate**, a clear volatile liquid used as a vasodilator and an antispasmodic. Dosage, 1-5 minims. It is often given by inhalation, the drug being sprinkled on a mask, gauge, or handkerchief and held over the mouth and nostrils.

amyla'ceous. Of a starchy nature.

am'y-lase. Any ferment which will convert starch into sugar; *e. g.*, the ptyalin of the saliva and the amylopsin of the pancreatic juice.

am'y-loid (Lat. *amylum*=starch and Gr. *eidōs*=form). Resembling starch.

am'y-lose. Any of the starchy carbohydrates; *e. g.*, starch, cellulose, gum.

am'y-lum. Starch.

ana. A Greek word, which signifies so much of each.

anab'a'tic (Gr. *anabasis*=a going up, ascent). Increase or growing more intense.

anabo'lic. Relating to constructive processes, as constructive metabolism; *e. g.*, the putting of simple compounds together to form tissue.

anab'olism. Constructive metabolism. The process by which simple substances are put together to form body tissue. Anabolism is the opposite of *katabolism*.

anacid'ity. Lack of normal acidity.

anaërobe *an-a'-er-a-ōb* (Gr. *an*=without, *aër*=air, and *bios*=life). Any microorganism that can live without air. **Facultative a.,** any microorganism that can live either in or without air.

a'nal (Lat. *analīs*). Pertaining to the anus or external opening of the rectum.

analgesia *an-al-je'-ze-ah* (Gr. *an*=without and *algos*=pain). Absence of pain, insensible to pain.

analg'e'sic. A medicine that allays pain.

anal'ogous (Gr. *analogia*=equality, proportion). That which resembles something else in some respects; *e. g.*, a part or organ that has the same func-

tion as another, but differs in structure.

anal'y-sis (Gr. *loosening* or *releasing*, from *ana*=backward and *lyō*=to loose). The process of decomposing a compound into its constituent parts and examining these elements to determine their nature.

anaphrodisia *an-af-ro-diz'-e-ah* (Gr. *an*=neg. and *aphrodite*=a name for Venus, the goddess of love). Sexual impotence, lack of sexual desire.

anasar'ca (Gr. *ana*=up and *sarkos*=flesh). An abnormal collection of serous fluid in the tissues of the body; general dropsy. The common causes are increased permeability of the capillary walls, changes in the blood, chronic affections of the viscera that result in venous stasis.

anastomo'sis (Gr. *ana*=up and *stomōō*=to stop the mouth of). The union of blood-vessels or hollow organs at their openings.

ana'tomy (Gr. *ana*=up and *temno*=to cut). The science of the structure of organized bodies. **Applied a.,** anatomy as applied to diagnosis and treatment. **Comparative a.,** anatomy that compares the structure of different kinds of animals. **Descriptive a.,** anatomy that describes individual parts of the body. **Gross a.,** anatomy as studied by the naked eye. **Histological a.,** histology, *i. e.*, anatomy that describes the minute structure of the body as seen with the aid of the microscope. **Pathological a.,** the anatomy of diseased tissues.

ane'mia, anæmia (Gr. *an*=neg. and *haima*=blood). An ab-

normal state of the system in which the blood is deficient either in quantity or quality. Deficiency in the quantity of the blood is usually the result of hemorrhage. The defects in the quality of the blood are either a comparatively small number of red blood-cells or a too small per cent. of hemoglobin. Defect in the quality of the blood may be due to (1) hemorrhage; (2) to abnormally rapid destruction of the red blood-cells from such causes as fever, poisons produced by bacteria, or the taking of drugs that cause hemolysis; (3) to a diminished formation of new cells or of hemoglobin on account of a debilitated condition of the system or of diseases of the bone-marrow (see Erythrocytes and Hemoglobin). **Primary a.**, anemias characteristic of the conditions known as *pernicious anemia*, *chlorosis*, *leukemia*, and *pseudoleukemia*—the causes of these anemias are unknown. **Secondary a.**, anemia due to some known cause as hemorrhage, fever, poison, etc.

ane'mic. Affected with anemia, pertaining to anemia.

an'eroid (Gr. *an*=neg. and *neros*=wet). That does not contain liquid. The expression is used principally in connection with barometers.

anesthesia *an-es-the'-ze-ah* (Gr. *anaisthēsia*=lack of perception). Loss of sensation.

anesthet'ic. A drug that produces anesthesia. **General a.**, an anesthetic that produces unconsciousness. **Local a.**, an anesthetic that affects only the part to which it is applied.

anes'thetist. One who administers general anesthetics.

an'esthol. A mixture of chloroform, ether, and ethyl chlorid that is used as a general anesthetic.

aneurism *an'-u-rizm* (Gr. *aneuryno*=to widen, to open). A sac-like dilatation in the wall of an artery as the result of weakness of its tissue. **Dissecting a.**, an aneurism in which the blood forces its way between the coats of the artery and scar tissue forms around the weak point preventing further hemorrhage. **Fusiform a.**, an aneurism or dilatation of the entire artery. **Saccular a.**, an aneurism that projects from one side of an artery.

angina *an-ji'-nah* (*anghō*=to press tight, to strangle). Spasmodic attack attended with a sense of suffocation. **A. pectoris**, angina due to contraction of the systemic arteries; it is usually associated with heart disease.

angioma *an-je-o'-mah* (Gr. *angeion*=a vessel). A tumor composed of blood-vessels. It occurs most frequently in the skin, where it is known as a *nevus* or *birthmark*.

angle (Lat. *angulus*). A sharp bend.

anhidrot'ic. A drug that checks the secretion of sweat.

anhy'drid (Gr. *anydria*=want of water). A chemical substance derived from an acid by the extraction of a molecule of water.

anhy'drous. A substance that has no water in its composition.

a'nilin (Arabic, *annil*=indigo). A coal-tar derivative that is the basis of many dyes.

anion *an'-e-on* (Gr. *ana*=up and *ion* pr. part. of *eimi*=to go).

The electric negation ion or radical of a molecule which in electrolysis is evolved at the positive pole and flies to the negative pole. For example, in a single fluid galvanic cell there is a zinc pole, that is known as the *anode* or *positive* pole, and a copper pole, termed the *negative* pole or *cathode*. These are stood in a dilute solution of sulphuric acid and, when the electric circuit is closed, the electric current passes from the zinc to the copper pole decomposing the sulphuric acid— H_2SO_4 . The hydrogen ions— H_2 —of the H_2SO_4 appear at the zinc or positive pole and fly to the negative pole. These ions are called the *positive ions* or *cations* because they are evolved at the positive pole and go to the cathode, but the sulphate ion— SO_4 —which is evolved at the negative pole and goes to the anode or positive pole is called the *anion* or *negative ion*.

anise *an'-is*. The fruit of *pimpinella anisum*. It is used as an aromatic and carminative. Dose, powder 5-20 grains; oil 1-10 minims.

ankle. The portion of the leg just above the foot. **A. bone**, the astragalus.

ankylosed *ang'-kil-ōzd* (Gr. *angkylosis* = stiffening of the joints). Stiffened, consolidated.

ankylo'sis. Union of the bones of a joint whereby the latter is immobilized.

ankylos'toma. Hook-worm; a species of worm that measures from 8-16 mm. in length. It sometimes infests the intestines giving rise to the disease known as *ankylostomiasis*, *hook-worm disease*, *uncinari-*

asis, and *miner's anemia*. The principal symptom of the disease is a profound anemia caused by minute hemorrhages due to the worm biting the intestinal membrane.

anneal. To temper a substance such as metal, glass, or porcelain by heat.

an'nular (Lat. *anularis*). In the form of a ring.

a'node (Gr. *ana* = up and *hodos* = a road). The positive pole of an electric battery; so called because it is the path by which the electric current enters the electrolyte on its way to the cathode. See **Anion**.

anorec'tal. Pertaining to both anus and rectum.

anorex'ia (Gr. *an* = no and *orexis* = appetite). Loss of appetite.

an'oscope. A speculum used for examining the rectum.

anosto'sis (Gr. *an* = no and *osteon* = bone). Defective development of bone.

antac'id (Lat. *ante* = against and *acidus* = sour). Any substance that counteracts or neutralizes an acid.

antag'onism (Gr. *antagōnisma* = struggle with another). Opposition.

antag'onist. (1) That which counteracts. (2) Muscles that are opposed in action; *e. g.*, the flexor muscles of the body are so arranged that they oppose the extensors, the abductors oppose the adductors, etc. The object of this arrangement is to prevent jerkiness of movement.

ante cibum *an'-te se'-bum* Lat. "*before meals*." The contraction *a. c.* is much used in writing prescriptions.

ante mor'tem. Latin for "*before death*."

ante na'tal (Lat. *ante*=before and *natus*=birth). Occurring before birth.

ante par'tum. Latin for "before delivery."

anteposi'tion. A forward displacement, as of the uterus.

ante'rior (Lat. *anterior*=before). In front of.

an'tero (Lat. *anterior*=before). A prefix meaning before.

antever'sion (Lat. *ante*=before and *versio*=a turning). A bending forward. A displacement of an organ in which it is tipped forward.

anthelmin'tic (Gr. *anti*=against and *helminthos*=a worm). A drug that will destroy worms.

an'thrax (Gr. *anthrax*=a coal, a carbuncle). (1) A carbuncle. (2) A very infectious and fatal disease of cattle and sheep, due to infection by the bacillus anthracis. Man can contract the disease from cattle or the wool and hides of animals that have died of the disease.

an'ti (Gr. *anti*=against). A prefix used to signify against.

an'tibodies. Constituents of the blood that antagonize substances similar to those under the influence of which they were developed; e. g., the antitoxins, agglutinins, opsonins, etc.

an'tidote (Gr. *anti*=against and *dotos*=given). A remedy for a poison. Antidotes are divided in two classes, *chemical* and *physiological*. **Chemical a.**, an antidote that will change the nature of poison so that it will be harmless; e. g., acids are antidotes for alkalis and alkalis for acids, since, when these two substances unite, a salt is formed, and tannin is an antidote for the alkaloids, because it unites

with them chemically and forms more or less insoluble substances, which, being insoluble, will not be absorbed. **Physiological a.**, a remedy that will counteract the ill effects that a poison has had on the system; e. g., demulcent drinks are used to relieve the irritation caused by corrosive poisons, stimulants are used to counteract the depressing effect of poisons, etc. See Table of Poisons.

antien'zyme. Any agent that interferes with the action of an enzyme.

antifebrile an-ti-fe'-bril (Gr. *anti*=against and Lat. *febris*=fever). Any drug or other agent that allays or reduces fever. An antipyretic.

antife'brin. A coal-tar product. It is antipyretic, analgesic, antiseptic, a cardiac depressant, and hemostatic. Dose: 2-10 grains. It is known also as acetanilid.

antifermen'tative. Any agent that prevents fermentation.

an'tigen. A substance which induces the production of antibodies.

antikam'nia. A proprietary preparation used as an antipyretic and analgesic. Dose: 3-10 grains. It is said to contain acetanilid, caffeine, and sodium bicarbonate.

antiluetic an-te-lu-et'-ik. Curing or preventing syphilis.

antily'sins (Gr. *anti*=against and *lyo*=to loose). Substances, formed in the blood of animals immunized against a disease, that assist in the destruction of the lysins produced by the bacteria that cause that special disease.

an'timony (Lat. *antimonium*). A crystalline metallic element.

A. and potassium tartrate, a salt formed by the action of antimony oxide on cream of tartar, known also as *tartar emetic*. Antimony is used as an emetic, heart sedative, and expectorant. Dosage $\frac{1}{30}$ – $\frac{1}{15}$, as an emetic, $\frac{1}{2}$ grain. **Wine of of a.**, 5–60 minims. **Compound syrup of squill**, which contains 0.2 per cent. of tartar emetic and 8 per cent. each of fluid-extracts of squill and senega—5–30 minims.

anti'pathy (Gr. *antipatheō*=to have an aversion, also *anti*=against and *pathos*=suffering). Repulsion, adverse.

antiperiod'ic. A drug which prevents the periodic return of symptoms.

antiphlogistin *an-te-flo-jist'-in* (Gr. *anti*=against and *phlox*=flame). A proprietary preparation that is used externally as an analgesic, antiseptic and to counteract inflammation.

antipyret'ic (Gr., *anti*=against and *pyretos*=fiery flame). Any agent used to reduce fever.

antipy'rin. A coal-tar derivative that has analgesic, antipyretic, styptic, and antiseptic qualities. Dose 5–15 grains.

antiscorbu'tic. An agent that prevents or cures scurvy.

antisep'sis (Gr. *anti*=against and *sepō*=to make rotten). The prevention of putrefaction, infection, etc., by the exclusion of bacteria and other microorganisms and by the use of agents that will prevent their propagation.

antisept'ic. An agent that will prevent the propagation of the microorganisms that cause disease, infection of wounds, putrefaction, and like processes.

antispasmod'ic. An agent that relieves spasm.

antitox'in (Gr. *anti*=against and *toxicon*=a poison used for smearing arrows, from *toxōn*=a bow). A protein substance that will destroy the toxins produced by bacteria. Such substances are formed in the animal body as the result of diseases due to bacterial origin. Just how they are formed is not known, but the most generally accepted theory is that advanced by Prof. Ehrlich; viz., that the cells of the body contain certain chemical substances that he calls *cell-receptors*, which have the power of taking from the blood and lymph the material they require for food and also the toxic matter produced by bacteria that invade the body. This matter unlike the food substances, destroys the receptors, but, unless injury of the cell is carried too far, the receptors will be regenerated and in such quantity that there will be more than enough for the cells' needs and the surplus will be discharged into the blood-stream. These free receptors constitute the antitoxins. Antitoxins are specific, *i. e.*, the antitoxins produced by one type of bacteria will not affect the toxins formed by any other class of bacteria. Antitoxins for a number of diseases are prepared in the bodies of animals, for injection into human beings. They are usually prepared in much the same way as the antitoxin for diphtheria, which is about as follows: A culture of the germ which causes diphtheria is grown in nutrient bouillon for about eight days; at the end of this time, the bacilli are killed by

the addition of carbolic acid to the bouillon, whercupon the germs sink and settle at the bottom of the flask and the liquid is then filtered off. This filtrate is known as the *diphtheria toxin*. A horse is injected with a dose of this filtrate, the strength of which is estimated as being just short of fatal. The animal becomes very ill and his body at once begins to manufacture an anti-toxin. When a sufficient amount of this antidote has been formed to neutralize the toxin produced by the bacteria, the horse recovers. He is then innoculated with a dose of the filtrate twice the strength of the former injection and upon his recovery from the effects of the second injection, he is given a third one and so on, until he fails to be made ill by a dose a thousand times as strong as the first dose. From three to six liters of blood are then drawn from the horse's jugular veins. This blood is allowed to clot and the serum which is extracted from the clot is the diphtheria antitoxin.

an'trum (Lat. = a *cave*). A cavity, especially one in bone. Two important antra in the human body are: (1) the **Highmore** or **maxillary antrum** situated in the upper jaw bone and communicating with the nose; (2) the **mastoid antrum**, situated in the mastoid bone and communicating with the middle ear.

anu'ria, anuresis. Suppression or deficiency of urine.

a'nus. The opening to the lower end of the rectum.

an'vil. The incus, one of the small bones of the middle ear.

aorta *a-or'-tah* (Gr. *aortiē* from *aeirō* = to lift). The largest

artery in the human body. It forms the main trunk of the arteries of the systemic circulation. The aorta arises from the upper part of the left ventricle, ascends for a short distance, arches backward and to the left side, over the root of the left lung, descends within the thorax on the left side of the vertebral column, passes through the aortic opening of the diaphragm into the abdomen, and terminates on a level with the fourth lumbar vertebra by bifurcating and so forming the right and left common iliac arteries.

apathet'ic (Gr. *apatheia* = destitute of feeling). Indifferent, without feeling.

ap'athy. Indifference, lack of emotion.

ape'rient (Lat. *aperiens* = opening). A laxative, a mild cathartic.

ap'erture. An opening.

aphasia *af-fa'-ze-ah* (Gr. *aphasia* = speechless). A failure of word memory. **Motor** or **ataxic a.**, impairment or loss of articulate speech from an inability to remember the efforts necessary to pronounce words. **Sensory** or **amnesia a.**, an inability to recognize written, printed, or spoken words due to loss of memory as the result of lesion in the part of the brain concerned with such memories.

apho'nia (Gr. *aphonia* = inability to produce sound). Inability to speak, loss of voice due to abnormal conditions in the throat, nervousness, etc., but not due to lesions in the brain, as in aphasia.

aphthæ *af'-the*. White spots in the mouth such as are characteristic of thrush.

apne'a (Gr. *apnoia* = want of wind). Breathlessness. Temporary cessation of respiration following a forced respiration.

apomor'phin hydrochlor'ate. A salt formed by heating morphin and hydrochloric acid in a sealed tube. It is used as an emetic and expectorant. Dose $\frac{1}{60}$ – $\frac{1}{8}$ grain.

aponeuro'sis (Gr. *apo* = from and *neuron* = a tendon). Flat wide tendons that connect muscles to each other.

apo'nia. Freedom from pain.

apophysis *ap-off'-is-is* (Gr. *apo* = from and *phuō* = to bring forth). An outgrowth or protuberance, especially upon a bone.

apo'thecary. A pharmacist or druggist.

appen'dage. Something added to another.

appendec'tomy, appendicectomy. Excision of the appendix vermiformis.

appendici'tis (Eng. *appendix* and *itis* = inflammation of the vermiform appendix).

appen'dix. That annexed to anything, an appendage. **A. vermiformis,** a worm-like looking process about three inches long and the diameter of a goose-quill, that hangs from the cecum.

appercep'tion (Lat. *ad* = to and *percipere* = to perceive). Consciousness. Conscious reception and interpretation of sensory impression.

ap'petite (Lat. *appetere* = to desire). (1) A desire for food. (2) Lust.

ap'plicator. An instrument for applying local applications.

ap'position (Lat. *appositio*). The act of adding or fitting together. The state of being fitted together.

approx'imal (Lat. *approximatus*). Near to, adjacent.

aqua ak'-wah. Latin for water.

arachnoid *ar-ak'-noid* (Gr. *arachnē* = spider and *eidos* = form). (1) Resembling a spider's web. (2) The middle one of the three membranes covering the brain and spinal cord.

arboriza'tion (Lat. *arborescens* = like a tree). The branch-like terminations of nerve-cell processes and of some nerve-fibers at their contact with muscles.

archiplasma *ar-ke-plaz'-ma* (Gr. *archi* = chief, first, and *plasso* = to form, to mold). The substance composing the fertilized ovum.

a'rea. A limited space.

are'ola (Lat. *areola* = a small open place, *dimin. of area*). (1) A space or interstice in connective tissue. (2) A ring-like discoloration. (3) The colored ring around the nipple.

are'olar. Pertaining to the areola. A tissue, a variety of connective tissue that exists chiefly in the form of thin sheets, full of interstices, and serves to hold the skin and mucous membranes to the underlying structures and the tissues composing the organs of the body to each other.

ar'genol. A silver albuminoid preparation that is used as an antiseptic.

ar'gentol. A silver preparation used as a local astringent, as an antiseptic in surgery and in the treatment of gonorrhea.

argen'tum. The Latin for silver.

arnica *ar'-nik-ka.* A drug obtained principally from the root and flowers of the *arnica montana* or *leopard's bane*. It is used externally for sprains

and bruises and internally as a diuretic and diaphoretic. Dosage: fluid-extract 5-15 minims; ext. 1-3 grains; tincture, 15-60 minims.

ar'gon. A chemic element contained in the atmosphere.

ar'gonin. A preparation consisting of silver nitrate, casein, and mercury that is used in a 1-2 per cent. solution in the treatment of gonorrhea and ophthalmia neonatorum.

argyria ar'ji'-reah (Gr. *argyros* = silver). Chronic silver poisoning. The condition is characterized by dyspepsia, anemia, gray discoloration of the skin and mucous membranes.

argyrol ar'ji'-rol. A combination of silver and yolk of egg used in the treatment of conjunctivitis, gonorrhea, inflammatory conditions of the throat, etc.

ar'istol. A derivative of thymol and iodine that is used as a dressing for ulcers, burns, etc.

arm (Lat. *armus*). The part of the upper extremity between the shoulder and the elbow; also, the upper extremity from the shoulder to the wrist is generally known as the *arm*.

aro'ma. Odor.

aromat'ic. Fragrant.

arrest.' To detain. To stop the growth of.

ar'rowroot. A starchy substance used as food; it is obtained from the root of the *Maranta arundinacea* and other plants.

ar'senic (Gr. *arsen* = a male; arsenic was so named on account of its strength). A metal element, the salts of which are used medicinally and, in overdoses, are exceedingly poisonous. It is used externally as a caustic and internally as a gastric sedative, as a hema-

tinic, a nerve sedative, and an alterative. Dosage—arsenous acid $\frac{1}{10}$ – $\frac{1}{20}$ grain; solution of arsenous acid, 1-10 minims; Fowler's solution 1-10 minims; sodium arsenate same as arsenous acid.

ar'sonite. Any salt of arsenous acid.

arterializa'tion. The oxygenation of blood. The process by which the venous blood, while passing through the lungs, absorbs oxygen from the air that has been drawn into the air cells in inspiration and gives up carbon dioxide.

arteri'asis. Degeneration of the walls of the arteries.

arte'riole. A small artery.

arteriol'ogy. The science or study of the arteries.

arte'riosclero'sis. Hardening of the arteries. This occurs normally as the result of old age; it is caused prematurely: (1) as the result of heredity or congenital defect in the tissues of the arterial walls; (2) of their injury by poisons formed in the body as the products of perverted digestion, metabolism, or disease; (3) by the use in excess of alcohol or of food, especially protein food; (4) by chronic lead poisoning; (5) by lack of proper nourishment. Sometimes arteries are thickened along their whole course, sometimes only in portions, but, in any case, the work of the heart is increased; it being more difficult for the heart to force the blood through non-elastic, than elastic vessels—and the tissues are not properly nourished.

arte'riostenosis. Contraction of an artery, narrowing of the caliber of an artery.

ar'tery (Gr. *aēr* = air and *tērēō* = to watch over). The arteries

were so named because, owing to their elastic nature, they force their contents into the veins at the time of death, and the anatomists of olden times, finding that, in the dead bodies they examined, the arteries were empty of blood, conceived the idea that they were designed for the circulation of air through the body. Arteries are the vessels through which the blood passes from the heart to the various parts of the body.

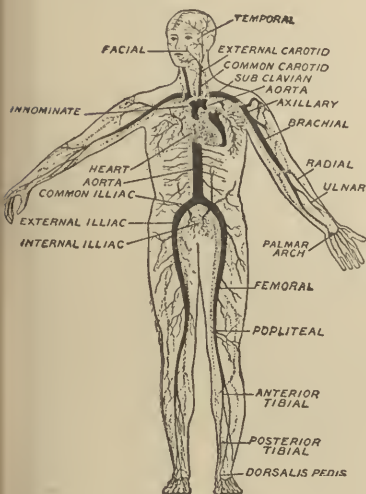


FIG. 2.—Diagram showing plan of distribution of arteries.

arthri'tis (Gr. *arthron*=a joint and *itis*=inflammation). Inflammation of a joint.

artic'ular (Lat. *articularis*). Pertaining to a joint.

articula'tion (Lat. *articulatio*). Connection between two parts, a joint.

asafe'tida. A drug obtained from the gum resin of the root of the *Ferula narthex*

and *scorodosma*. It is used as a carminative, nerve sedative, and expectorant. It is often given by rectum to relieve tympanites, the milk or emulsion of asafetida being added to about 6 ounces of water 105° F. Dosage: Tincture $\frac{1}{4}$ –1 dram; milk 1–4 drams, or, by rectum, 1–2 ounces.

asbes'tos (Gr. *asbestos*=unquenchable and quicklime). A variety of hornblende, a substance that enters into the composition of many rocks. It is incombustible.

ascari'asis. The condition caused by ascarides. Common symptoms are: dyspepsia, intestinal pain, anemia, nervousness, pruritis.

as'caris—pl. *ascarides*—(Gr. *askarizō*=to leap). Round worms resembling earthworms, the eggs of which sometimes enter the human body in infected food or drink and the worms develop from these. They sometimes cause no symptoms, but they may give rise to the condition known as *ascariasis* or cause trouble by getting into the bile-ducts.

ascites as-si'-tēz (Gr. *askos*=a leathern bottle). A collection of serous fluid in the peritoneal cavity. Ascites is caused by inflammation of the peritoneum; by interference with the portal circulation, such as occurs in diseases of the liver; by interference with the venous circulation as the result of the heart or kidney disease; and by changes in the quality of the blood, as in severe anemia.

asep'sis (Gr. *a*=not and *sēpsis*=putrefaction). Absence from septic matter, freedom from infection.

asep'tic. Not septic. Not produced by, nor due to, putrefaction or infection.

ash. The products of combustion.

aspergillus *as-per-jil'-lus* (Lat. *aspergere* = to scatter). A genus or fungi some species of which are pathogenic.

asphyxia *as-fiks'-e-ah.* Suffocation.

aspidium *as-pid'-e-um,* male-fern. A drug that is frequently used as an anthelmintic for tapeworms. Dose of the oleo-resin or extract: 1-2 drams.

aspira'tion. (1) Inspiration. (2) The withdrawal of fluids from a cavity by means of suction.

as'pirator. The apparatus used for performing aspiration.

as'pirin. A salicylic acid compound that is used as an anhidrotic, in the form of a dusting powder, for sweating feet and axillæ, as an antiseptic, antipyretic, antirheumatic, and antineuralgic. Dose: 5-15 grains.

assimila'tion (Lat. *assimulo* = to make like). Constructive metabolism. The process whereby substances derived from food are transformed into living tissue. Conversion into the substance of a plant or animal. **Mental a.,** the reception and understanding of sensory impressions.

associa'tion (Lat. *ad* = to and *socius* = a fellow). Coördination, uniting. **A. centers,** the centers in the central nervous system that control the higher and more complex mental activities.

asthe'nia (Gr. *a* = without and *sthenos* = strength). Without strength, weakly, infirm.

asthma *az'-mah* (Gr. *asthma* from *ao* = to blow). A chronic dis-

ease characterized by recurring attacks of shortness of breath, loud wheezing respirations, more or less cyanosis, and a feeling of suffocation. Asthma may be due to irritation of the small bronchi, to heart disease, adenoids, polypi in the nose, and similar causes.

astig'matism (Gr. *a* = without and *stigmatos* = a mark or point). A defect in the eyesight due to differences in the curvature of the lens and cornea in consequence of which light-rays from different meridians are not brought to the same focus on the retina.

astrag'alus (Gr. *astragalos* = the ball of the ankle joint). One of the tarsus bones of the foot.

astringent *as'trin'-jent* (Lat. *stringere* = to bind). A substance which produces contraction of the tissues and checks secretions.

asymmetry *ah-sim'-met-re.* Lack of symmetry.

atac'tic. Lack of coördination.

a'tavism (Lat. an *ancestor*). The inheritance of the characteristics of some remote ancestor.

atax'ia (Gr. *a* = without and *taxis* = management). Lack of muscular or functional coördination. **Locomotor a.,** ataxia due to degeneration of the sensory nerve-trunks of the spinal cord in consequence of which there is a loss of muscle sense, more especially in the legs, and the patient's walking is no longer a matter of reflex, but each step is made by voluntary effort and the usual coördination of the muscle action is defective. Also there is a progressive loss of other reflexes and functional disturbances of various organs.

at'las. The first cervical vertebra.

at'om. A common definition is "the ultimate particle into which an element or compound can be divided," but recent researches have led to the supposition that atoms are not the smallest particles into which it is possible to divide substances, but that they can be broken into still smaller particles to which the name of *electrons* has been given. Electrons are described as *an electric charge in motion, or a unit or atom of negative electricity*.

at'ony (Lat. *atonia*). Loss of strength or tone. Relaxed.

atop'ic (Gr. *a*=without and *topos*=a place). Displaced.

atre'sia. Occlusion—closure—of an opening or canal.

at'rophy (Lat. *atrophy*). The wasting or diminution of the size of a part from lack of nutrition.

at'ropin. An alkaloid obtained from the roots and leaves of the plant known as *Atropa belladonna*. It is used as a cardiac and respiratory stimulant, analgesic, antispasmodic secretory depressor, and a mydriatic. Dosage: $\frac{1}{120}$ — $\frac{1}{60}$ grain.

atten'uant. Dilution, thinning. A medicine that thins the blood.

attrac'tion (Lat. *ad*=to and *traho*=to draw). The force which draws and holds one body to another or the particles of a body together. Chemical affinity.

audiom'eter. An instrument used for measuring the acuteness of the sense of hearing.

aud'iphone (Lat. *audio*=to hear and Gr. *phonē*=a sound). An

instrument that enables the deaf to hear. The essential part of the instrument is a thin plate of hardened caoutchouc which is very sensible to sound vibration. Part of this plate is placed against the upper teeth and the sound waves are collected by it and carried to the auditory nerve by way of the teeth.

aud'itory (Lat. *audio*=to hear). Pertaining to the sense of hearing.

augment'. To increase, to strengthen.

aura aw'-rah (Lat. *aura*=breath). A peculiar sensation as of a current of air or a slight tremor passing over the body. An epileptic attack is usually preceded by an aura.

au'ral. Pertaining to the ear.

aur'icle (Lat. *auricula*). The external ear, anything shaped like an ear.

auric'ular. Pertaining to the ear, ear-shaped.

aur'ist. A specialist in ear diseases.

aur'um. Latin for gold.

auscult'a'tion. The act of listening for sounds within the body in order to determine the condition of the organ producing the sounds.

auto-antitox'in (Gr. *auto*=self and *antitoxin*). Antitoxin produced within the body.

au'toclave. An apparatus used to secure steam under pressure for the purpose of sterilizing.

autogen'ic. Spontaneous generation.

autointoxication. Poisoned by substances generated within the body.

automat'ic. Not voluntary. Carried on unconsciously.

au'topsy. Dissection and examination of a dead body.

autotrophic *aw-to-tro'-fik*. Self-nourishing. **A. bacteria**, bacteria which can subsist on carbon dioxid and inorganic salts.

autotoxe'mia. Poisoned by one's own secretions.

axil'la. The armpit.

ax'illary (Lat. *auxiliaris* = to help). Helping. An organ or part that helps another.

ax'ial rota'tion. Rotation of a body around its axis.

ax'is. (1) A straight line, real or imaginary, around which a body revolves. (2) The second vertebra of the spinal column; the first vertebra—the atlas—rotates on the axis.

ax'le. The bar in the center of a wheel around which the latter moves.

ax'on (Gr. *axon* = an axle). The axis-cylinder process of a nerve cell.

az'urin. An acetate of sodium and theobromin that is used as a diuretic. Dose: 10-15 grains.

azygos *az'-ig-os* (Gr. *a* = without and *zugon* = a yoke). Parts occurring singly, not in pairs. **A. veins**, three veins which extend through the abdominal and thoracic cavities, near the vertebral column, and receive the blood from many of the veins of the dorsal and lateral thoracic walls. Also they connect, though indirectly, with the common iliac veins and the *venæ cavæ* and thus can, if obstruction occurs in the inferior vena cava, return the blood from the lower part of the body to the heart.

B

bacillac *bas'-il-ak*. A proprietary milk preparation that is soured by a pure culture of lactobacilli.

bacillus *bas-il'-us* pl. *bacilli* (Lat. *little stick*). A rod-shaped bacterium.

bacte'rium pl. *bacteria*. A microscopic organism that has both vegetable and animal characteristics. Bacteria are of various shapes, but their general form is either rod-shaped (these are called *bacilli*), round (the *micrococci*), or spiral (the *spirilli*). Bacteria under favorable circumstances multiply rapidly by fission or division. Favorable conditions imply warmth, moisture, nourishment; also, some species require air—*aërobes*—others do not—*anaërobes*—some can live with or without air—*facultative aërobes* or *anaërobes*; the majority of species require organic food for their nutrition, but a few can use carbon dioxid and inorganic salts—the latter are called *autotrophic*. Different kinds of bacteria cause different changes in the substances upon which they feed; some produce putrefaction, others fermentation, etc. Many of these bacteria are of inestimable value; especially, in ridding the world of dead matter, in promoting the growth of plants, and in many industries. Other varieties—pathogenic bacteria—produce disease both in man, other animals, and plants, and some species will cause suppuration if they gain entrance to the tissues through wounds in the skin or mucous membrane.

bag of waters. The membranes which envelop the fetus and hold the liquor amnii.

ballottement *bal-lôt'-maw*. Examination for the diagnosis of pregnancy, which consists in inserting a finger in the vagina and pushing up the uterus so as to cause the fetus, if such be in the uterus, to rise and fall again, so that it can be felt by the inserted finger.

balsam *bawl'-sam*. A resin with a fragrant odor that is obtained from trees and other plants. **Canada b.**, the balsam of a fir of North America much used in the preparation of slides for microscopical work. **B. of Peru**, balsam from a tree of Central America; it is used externally as a stimulant for indolent granulations and ulcers and internally as an expectorant. Dose of syrup, 1-4 drams.

band'age. A strip of muslin or other material used: (1) to retain splints, surgical dressings and other applications in place; (2) to give support and (3) afford pressure.

band'y-legged. Bow-legged.

barber's itch. (1) A chronic inflammation of the hair follicles, also called sycosis. (2) **Tinea sycosis**, an inflammatory condition of the hair follicles due to infection by a parasite.

barium *ba'-re-um*. A metal element. **B. chlorid**, a compound of barium and chlorine used as a heart tonic and an alterative. Dose $\frac{1}{10}$ - $\frac{1}{4}$ grain.

Barnes's bag. A small rubber bag that is sometimes introduced into the uterus when it is necessary to dilate the cervix. After the bag is in place, it is filled with water or air.

base. (1) The foundation. (2) The chief ingredient of a compound. (3) A metal element

that will unite with an acid to form a salt. The word base is often used interchangeably with alkali, but, while bases are alkalies, there are some oxides and carbonates which have an alkaline reaction that are not bases.

Basedow's Disease'. So named from the physician who first described it. It is known also as *exophthalmic goiter*. A disease due to increased secretion by the thyroid gland and characterized by marked protuberance of the eyeballs, rapid heart action, muscular tremor, and other nervous symptoms.

base'ment. The lowest or most fundamental part. **B. membrane**, a delicate membrane situated beneath the epithelium of the skin, mucous membrane, and secretory glands.

Basham's Mixture. A drug consisting of a solution of iron and ammonium acetate. Dose 1-4 drams.

ba'sic. Pertaining to a base. Having the properties of a base.

bas'tard. Illegitimate.

bath. Water or other medium in which the body or a part of it is immersed for cleansing or therapeutic purposes. **Alcohol b.**, a bath which consists in sponging the patient with alcohol, about 30 per cent., the body being exposed to the air during the treatment in order to facilitate the evaporation of the alcohol and consequently the cooling of the surface of the body and the physiological reaction that follows the use of cold. (See *Evaporation and Reaction*.) This treatment is often used in the treatment of febrile diseases. **Alkaline b.**, a vari-

ety of bath often used in the treatment of skin diseases. Bicarbonate of soda is the alkali frequently used; between 1 and 2 pounds of the soda are dissolved in 25 gallons of water (an ordinary sized bathtub half full), about 90° F. The patient lies in this solution for from 10-20 minutes and is afterward enveloped in a hot sheet and dried by patting or gentle rubbing over the sheet—the skin must not be rubbed.

Bran b., 2 or 3 pounds of bran are put into a bag made of doubled gauze and this is moved about in the bath water until the latter is milky white. The water is between 90° and 98° F. The patient lies in this for about 20 minutes and is afterward enveloped in a hot sheet and dried as after a soda bath. The treatment is used in skin diseases.

Brand b., a cold bath in which the patient is kept in water, usually between 70° and 80° F., for about 20 minutes, and rubbed constantly during that time. It was so called because a physician named Brand was the first one to advocate the use of the cold tub-bath in typhoid fever.

Brine b., a bath which consists in rubbing the patient with towels that have been soaked in a saturated solution of salt and then dried, and, afterward, spraying the patient or giving a sponge bath with water about 70° F. The treatment is used as a general tonic and stimulant. **Cabinet**

b., a hot-air, vapor, or electric bath given in a cabinet in which the patient, except her head, is enclosed. **Carbon dioxid b.**, a bath in which the water is impregnated with carbon dioxid. The gas is

obtained in several ways (1) from salts, such as the Nauheim salts, which, when dissolved in water, set free carbon dioxid; (2) by the addition of (a) bicarbonate of soda and (b) hydrochloric acid to the bath water; (3) by means of a special apparatus which consists of a cylinder containing the carbon dioxid and a mat, which is placed in the bottom of the tub, through which the gas is allowed to pass from the cylinder into the water. The water is usually between 80° and 90° F. The bath is continued for from 5-20 minutes—the patient lying quietly in the water—and it is followed by friction and rest in bed. These baths are used in the treatment of cardiac, renal, and nervous diseases, and owe their action to the counter-irritant effect resulting from the action of the carbon dioxid upon the skin. **Cold b.**, a bath below 70° F. **Cool b.**, a bath between 70° and 80° F. **Douche b.**, a bath in which water is sprayed over the patient with a bath-spray or else thrown over, or against, her in jets. **Electric-light b.**, a bath given in a cabinet, fitted with electric lights, in which the patient lies for about 20 minutes, the body, except the head, exposed to the light. If the effect of heat, as well as that of the light rays, is wanted, the cabinet is kept closed, otherwise the door is left open. **Foot b.**, a bath in which the feet are kept immersed in water, 112-115° F. or a mustard solution (1 tablespoon of mustard to each gallon of water) for about 20 minutes. The tub and patient's legs are enveloped in a blanket so

that the temperature of the water will not become lowered.

Hot b., a bath with a temperature of or above 100° F.

Hot-air b., a bath in which the patient sits or lies in a cabinet into which hot air is introduced through a pipe leading from a lighted lamp or gas flame or in which the air is heated by some electrical device. The temperature of the air for a bath, when the whole body is exposed, varies from 120–160° F.; for a partial bath 200–300° F.

Hydro-electric b., a bath the water of which is charged with electricity. Such baths are used in the treatment of nephritis, uremia, rheumatism.

Mustard b., a bath in which mustard—1 tablespoon for each gallon of water—is dissolved. If the full counter-irritant effect of the mustard is desired the temperature of the water must not exceed 100° F. Mustard baths are used as counterirritants.

Partial b., a bath which includes only a part of the body, such as hot-air baths used for rheumatism or stiffness of a joint following injury.

Mercury b., a bath in which 2 drams of bichlorid are added to 20 gallons of water and, after the bichlorid is dissolved, 20 drops of hydrochloric acid. The patient lies in this for about 5 minutes. Such baths are sometimes used in the treatment of syphilis.

Mud b., a bath in which the bather is immersed in the mud found at certain mineral springs. Such baths are sometimes used in the treatment of rheumatism.

Russian b., the bather is exposed to steam, either in a specially constructed room or cabinet, and is afterward given massage

and a cold spray or douche bath. **Shower or spray b.**, a bath in which the water falls upon the body in a fine spray. **Sitz b.**, a bath given in a specially constructed tub which allows of the patient sitting in it with her feet on the floor and only the upper part of her thighs and the trunk to the waist line in the water. The usual temperature of the bath is 105° F. The bath is used to relieve congestion of the pelvic organs or rectum. **Sulphur b.**, a bath in which from 1–2 ounces of sulphur are dissolved in the water, which is usually between 85° and 95° F. Such baths are used in skin diseases and to stimulate the circulation of blood in the skin vessels. **Sun b.**, the patient lies without clothing in the sun. **Temperate b.**, a bath with a temperature between 75° and 85° F. **Tepid b.**, a bath 85–95° F. **Turkish b.**, a hot-air bath given in a specially constructed room or rooms in which the temperature can be gradually increased to about 160° F. The bather remains in the room for from 5–20 minutes, and after leaving it, is massaged and given a cold douche or spray bath. **Vapor b.**, a Russian bath. **Warm b.**, a bath in water 90–100° F.

bat'tery. A series or set of Leyden jars or of galvanic cells which afford an electric current.

bed-sore, known also as a *pressure-sore*. A breaking down of the tissue as the result of pressure, either of the bed or of such appliances as splints. The sores are due to defective nutrition of the tissues on account of interference with the circulation

of blood in the part by the pressure. Bed-sores are more likely to occur when the patient is emaciated, anemic, or when conditions, such as edema, exist, which interfere with the circulation of the blood in the superficial vessels.

beef-tea. A liquid containing the soluble extractive matter of beef. It is not very nutritious, one cup yielding only about 60 calories.

belladonna. A drug derived from the leaves and roots of the *Atropa belladonna*—deadly nightshade—its alkaloid is atropin. It is used as an analgesic, antispasmodic, secretory depressor, cardiac and respiratory stimulant, and a mydriatic. Dosage: extract $\frac{1}{8}$ – $\frac{1}{2}$ grain; fluid-extract, $\frac{1}{2}$ –2 minims. **B. ointment**, contains 10 per cent. of the extract; **B. plaster**, 0.4 per cent.

bel'ly. (1) The abdomen. (2) The prominent part of a muscle.

benign *be-nîn* (Lat. *benignus*). Not malignant. The term is used more especially in connection with tumors.

ben'zene. A colorless volatile inflammable liquid obtained from naphtha or soft coal. It dissolves fats, resins, iodine, sulphur, phosphorus, and is used for removal of stains made by such substances. It is antiseptic and is used as a parasiticide. Many drugs are derived from it, some of the more important of which are, acetanilid, resorcin, salicylic acid, naphthol, thymol, benzoic acid, phenol, and anilin.

benzo'ic acid. A white crystalline acid obtained from benzoin and other resins and from coal-tar. Its salts are ben-

zoates. Dosage, benzoic acid 5–15 grains; ammonium benzoate, 5–15 grains; sodium benzoate, 5–15 grains; lithium benzoate, 5–20 grains.

ben'zoin. A balsamic resin from a tree of Southern Asia, the *styrax benzoin*. It is antiseptic, a solution of 1:1000 inhibiting the growth of bacteria; also, it is antipyretic and an expectorant, and it is much used as an inhalant in respiratory diseases, about 1 dram of the drug being added to a kettle of boiling water and the arising vapor inhaled. Dose of the tincture 15–60 minims.

ben'zol. Same as benzene.

ben'zosal, called also guaiacol benzoate. A crystalline powder containing 45 per cent. guaiacol. It is sometimes used as an intestinal antiseptic. Dose 1–10 grains.

ber'iber'i. A polyneuritis—inflammation of the nerves—which is very prevalent in the Orient, especially in Japan, India, and Ceylon, where it often occurs in epidemic form. The active cause is unknown, but poor food is a predisposing factor. The disease is characterized by pain, a tingling sensation, weakness and, sometimes, paralysis of the limbs. Also there is atrophy of the muscles. In certain cases, known as wet b., this condition is not apparent at first because of the edema that is present, but as this disappears the wasting is marked. The mortality ranges from 2–50 per cent.

bi bî (Lat. *bi*=two). A prefix meaning two.

bib'ulous (Lat. *bibere*=to drink). Having the power of absorbing water.

bicar'bonate (Lat. *bi*=two and Eng. *carbonate*). Any salt that has two equivalents of carbonic acid and one of a base. **B. of sodium** (NaHCO_3), known also as *sodium hydrogen carbonate* and *baking soda*, a sodium compound made by passing carbon dioxid into a strong solution of carbonate of sodium. Medicinally, *b. of soda* is used as an antacid to neutralize the acid of the gastric juice, and, as it is excreted through the kidneys, it is sometimes used in the treatment of cystitis to render the urine alkaline. It is used externally, as a sedative, in the case of burns and skin diseases, and to allay the irritation caused by the sting of bees, etc.

bicel'lular. Consisting of two cells.

bi'ceps (Lat. *bi*=two and *caput*=head). Two-headed. The name is applied to muscles that have two heads or origins; especially the large two-headed muscles that constitute part of the fleshy portion of each upper arm and thigh.

bichlo'rid. A chlorid salt that contains two atoms of chlorine in each molecule united to an atom of some other element; *e. g.*, bichlorid of mercury (HgCl_2). See Mercury.

bicipital *bi-sip'-it-al*. (1) Having two heads. (2) pertaining to a biceps muscle.

bicon'cave. Having two concave—hollow—surfaces.

bicon'vex. Having two convex—arched—surfaces.

bicus'pid (Lat. *bi*=two and *cuspis*=points). Having two points. **B. valve**, the valve between the left auricle and ventricle of the heart, known

also as the mitral valve. **B. teeth**, the teeth with two prongs; there are eight such teeth in the permanent set of teeth—four in each jaw, two of which are placed immediately behind each of the canine teeth. There are no bicuspid teeth in the temporary set of teeth.

bifid *bi'-fid* (Lat. *bifidus*). Divided in two.

bifo'cal. Having a double focus. The term is applied to lens.

bifo'rate (Lat. *bi*=two and *fora*=opening). Having two openings or apertures.

bi'furcate (Lat. *bi*=two and *furca*=fork). Forked. Divided into two branches.

bigem'iny (Lat. *bi*=two and *gemini*=twins). The condition of occurring in pairs.

bilat'eral (Lat. *bi*=two and *latus*=side). Two-sided.

bile. A viscid, alkaline liquid, either deep yellow or green in color, secreted by the liver cells. It is both an excretion and a secretion, for it carries off certain waste products and, also, it plays an important rôle in digestion since it aids in the saponification and absorption of fats. The quantity of bile secreted daily, by an adult of average weight, varies between 500 and 800 c.c. Bile contains water, pigment, bile acids, salts, cholesterolin, lecithin, neutral fats, soaps, and neucleo-albumin.

bil'iary. Pertaining to the bile. **B. ducts**, the ducts which serve for the conveyance of bile. They are known as: (1) The *hepatic ducts*; these have their origin in the minute interspaces that exist between the secretory cells of the liver and unite to form the two

main ducts which, in turn, join, forming the chief *hepatic duct*. This unites with the cystic duct to form the *common bile duct* through which the bile enters the intestine.

(2) The *cystic duct*, which extends from the neck of the gall-bladder to the hepatic duct and serves for the passage of bile to and from the gall-bladder. (3) The *common duct*, which is formed by the union of the hepatic and cystic ducts and serves for the passage of bile into the duodenum and also of the pancreatic juice, the pancreatic duct opening into it.

bilifica'tion. The formation of bile.

bilious bil'-yus. Of the nature of bile. Excess of bile.

bil'iousness. A condition formerly attributed to an excess of bile, in which there is malaise, indigestion, and headache. It is now thought that the condition is more frequently due to constipation.

biliru'bin. The chief coloring matter of bile; it is derived from hemoglobin.

biman'ual. Performed with both hands.

bi'nary (Lat. *binarius*=consisting of two). A compound made up of two elements.

bino'cular (Lat. *bini*=two and *oculus*=eye). Pertaining to both eyes. **B. vision**, normal vision with both eyes.

bi'oblast (Gr. *bios*=life and *blastos*=germ). An elementary cell or organism.

biochem'istry. The chemistry of living tissues and of vital processes.

biodynam'ics (Gr. *bios*=life and *dynamis*=power). The branch of biology which deals with

the vital forces or activities of the body.

biogen'esis (Gr. *bios*=life and *genesis*=generation). The origin of living things from living things.

biol'ogy (Gr. *bios*=life and *logos*=a discourse). The science that treats of life and living things. It has many branches; e. g., anatomy, zoölogy, botany, animal and plant physiology, histology, etc.

bi'oplasm (Gr. *bios*=life and *plasso*=to form). Germinal matter from which living tissue is formed. The more vital part of protoplasm.

bioplas'min. A substance supposed to exist in living cells which is essential for their regeneration and functioning.

bi'ped (Lat. *bi*=two and *pedis*=foot). Having two feet.

bipo'lar. Having two poles or processes.

bisec'tion. Cutting in two.

bisex'ual. Having some of the reproductive organs of both sexes.

bis'muth. A heavy, crystalline, brittle metal element, salts of which are used medicinally for their astringent and antiseptic properties. Dosage of some of the more common salts: B. benzoate, 5-15 grains; B. nitrate, 1-15 grains; B. salicylate, 5-15 grains; B. subcarbonate, 5-30 grains; B. subgallate, 4-8 grains; B. subnitrate, 5-40 grains.

bis'toury. A narrow knife used in surgery.

bit'ter. (1) Having an unpalatable taste like that of quinine. (2) Same as bitters.

bit'ters. A term used for medicines with a bitter taste that are used as alteratives, appetizers, and tonics. **Simple**

b., bitters which owe their effect solely to their local action upon the alimentary tract. They stimulate the ends of the nerves of taste distributed in the mucous membrane of the mouth and the impression is conveyed to a center in the medulla oblongata and from there to the vasomotor and secretory nerves supplying the salivary glands, thus increasing the blood supply in, and activity of, these glands; the activity of the gastric glands are in turn stimulated and the irritation of the ends of the gastric nerves also increases the peristaltic action of the stomach. Thus, these bitters further digestion, improve the appetite and, by so doing, improve the general health; *i. e.*, they act as tonics.

bitu'minous. Consisting or having the quality of mineral tar or asphalt. **B. coal**, a coal which burns with a yellow smoky flame and on distillation yields tar and various hydrocarbons.

bi'uret (Lat. *bis*=double and *urea*), ($C_2O_2N_3H_5 + H_2O$). A substance that occurs in the disintegration of protein matter; it is equivalent to two molecules of urea minus one of ammonia.

biv'alance. Having a valence of two. See Valence.

bi'valve. Having two valves.

Blackwater fever. A name given to estivo-autumnal and pernicious malarial fevers when, due to the destruction of the red blood-cells by the malarial organism, the urine contains so much hemoglobin that it is very dark in color.

blad'der. A membranous sac.

Gall b., a pear-shaped organ about 4 inches in length and

capable of holding about 8-10 drams, situated in the gall-bladder fissure, in the under surface of the liver. It serves as a reservoir for the bile.

Urinary b., the reservoir for the urine; a musculo-membranous sac which, when moderately distended, measures about 5 inches in length and 3 across, and holds about 1 pint. It is situated in the pelvic cavity, behind the pubes, in front of—in the female—the anterior wall of the vagina and the uterus, or—in the male—the rectum.

bland. Soothing.

blast (Gr. *blastos*=germ). A nucleated erythrocyte—red blood-corpuscle. Called also erythroblast. Except when the blood has been depleted of its corpuscles, as by hemorrhage, nucleated red corpuscles are found only in the bone marrow, where new cells are formed from them. The cell nucleus not being necessary in respiration, and increasing the weight of the cell, it is discarded before the cell enters the circulation.

blaste'ma (Gr. *blastos*=asprout). The rudimentary matter from which tissues are formed; embryonic tissue.

blas'toderm (Gr. *blastos*=a sprout and *derma*=skin). The germinal membrane in an ovum or egg.

blasto'ma. A morbid granular growth caused by a micro-organism or a fetal rudiment. See Tumor.

blastogene'sis (Gr. *blastos*=a germ and *genesis*=generation). (1) Multiplication by budding. (2) Transmission of characteristic from parents to offspring by the germ plasma.

blastomycetes *blas-to-mī-se'-tēz* (Gr. *blastos* = a germ and *mykēs* = a fungus). The saccharomycetes or yeasts.

Blaud's pills: called after a French physician. Their principal constituents are sulphate of iron and carbonate of potassium.

bleach'ing. The removal of color. **B. agent,** any agent that will remove color. One of the best of these is chlorin. Its action is due to its affinity for hydrogen in consequence of which it unites with the hydrogen of the water, setting free the oxygen, which, in turn, combines with the staining agent and disintegrates it, thus facilitating its removal. Chlorin, for this purpose, is obtained in several forms, one of the most simple being sodium chlorid (common salt) and lemon juice—the citric acid of the lemon juice combines with the sodium of the salt, setting free the chlorin. The sun, by virtue of its chemical-actinic-rays, is another powerful bleaching agent.

blear (a modification of blur). Watery. **B. eye,** an eye that is sore and watery.

bleb. A vesicle filled with fluid, a blister.

bleeder. See Hemophilia.

blennorrhœa *blen-o-re'-ah* (Gr. *blenna* = mucus and *rheō* = to flow). A discharge from mucous membranes, especially gonorrheal discharge from the genital or urinary tract.

blennu'ria (Gr. *blenna* = mucus and urine). Mucus in the urine.

blepharitis *blef-ar-it'-is* (Gr. *blepharis* = the eyelid and *itis* = inflammation). Inflammation of the eyelids. **B. mar-**

ginalis, inflammation of the border of the eyelids. There are two forms: *b. squamosa*, in which the edges of the lids are reddened and covered with dry scales, and *b. ulcerosa*, in which ulcers form beneath the crusts. Common causes are astigmatism; excessive use of the eyes; constant exposure to dust, smoke, or overbright light; much weeping.

blepharoplegia *blef-ar-o-ple'-je-ah.* Paralysis of an eyelid.

blepharopyorrhœa *blef-ar-o-pi-o-re'-ah* (Gr. *blepharis* = the eyelid, *pyo* = pus, and *rheō* = to flow). Inflammation of the eyelid associated with a purulent discharge—purulent ophthalmia.

bleph'arostat. An instrument for holding the lids apart during operations upon the eye.

blepharot'omy (Gr. *blepharis* = the eyelid and *temno* = to cut). Incision into an eyelid.

blindness. Destitute of sight. **Color b.,** an inability to distinguish certain colors. The cause of the trouble is not known. One theory is that different parts of the retina respond to different color sensations, and that color b. is due to imperfect development of the part of the retina that should respond to the color that the individual fails to recognize. **Cortical b.,** blindness due to lesion in the visual center in the cortex of the brain. **Psychic b.,** destitute of understanding. **Word b.,** a form of aphasia in which there is inability to recognize written words.

blind-spot. A spot near the center of the retina, where the optic nerve enters the eye from the brain, that is not

sensitive to light and, therefore, blind.

blis'ter. A bleb or vesicle containing serum. An agent that produces a blister. **Blood b.,** a blister containing blood. **Fly b.,** known also as cantharides and Spanish fly b., a plaster, or other vehicle, the active principle of which is a powder made of the powdered bodies of the *Cantharis vesicatoria*, a beetle of Southern Europe. Its therapeutic value consists in the irritation which it produces, in consequence of which a large amount of blood is drawn to the part, congestion lessened, and the circulation improved in underlying structures or those intimately connected by nerves. Before applying a blister, the part is shaved, cleansed, and washed with a disinfectant. The medicated surface of the plaster is oiled and laid on the skin; it is secured in place with a bandage, which is not applied tightly. The plaster is left on for from 6 to 8 hours unless a blister is raised sooner. When the plaster is removed, care is taken not to break the blister. The skin which was under the plaster is then washed gently with oil to remove any remaining cantharides, and a dressing of sterile ointment, spread on sterile gauze, applied. The cantharides is sometimes obtained dissolved in collodion. The skin is prepared as for a plaster and, in addition, the area to which the collodion is to be applied is outlined with oil. The size of the area covered with collodion seldom exceeds 1-2 inches square.

blood. A reddish, viscid, opaque liquid, that circulates through the body. It has a

normal specific gravity of 1041 to 1067, and approximately neutral reaction and a normal temperature of 100° F. Its principal constituents are:

- | | | | | | |
|---------------------------------|---|------------------------|---|---------------------|--|
| (1) Water | | | | | |
| | <table border="0"> <tr> <td>Corpuscles</td> <td>{ red white blood-plates</td> </tr> <tr> <td>Proteins such as</td> <td>{ fibrinogen albumins globulins nucleo- proteins</td> </tr> </table> | Corpuscles | { red white blood-plates | Proteins such as | { fibrinogen albumins globulins nucleo- proteins |
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| Proteins such as | { fibrinogen albumins globulins nucleo- proteins | | | | |
| (2) Solids | | | | | |
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| Extractives such as | { Fatty sub- stances Sugar Inorganic salts urea lecithin lactic and other acids | | | | |
| (3) Gases | { Oxygen Carbon dioxide Nitrogen | | | | |
| (4) Enzymes | | | | | |
| (5) Immune bodies such as | { Opsonins Antitoxins Antibacterial substances | | | | |

The purposes which the blood serves are: (1) It carries to the tissues: (a) the material including water which they require for their growth and repair; (b) oxygen; (c) certain glandular secretions which are necessary to promote oxidation and other metabolic processes. (2) It takes waste matter from the tissues. (3) It distributes and equalizes the heat produced in the tissues by oxidation. (4) Its immune bodies and white corpuscles protect the body from disease. **B. cast,** a microscopic coagulum of blood seen in the urine in certain diseased conditions of the kidneys. **B. cell,** a blood corpuscle. **B. clot,** a coagulum of blood; when blood is shed

and, under certain abnormal conditions, even in the blood-vessels, the soluble fibrinogen is changed into insoluble fibrin, which is precipitated in the form of a meshwork of fine threads. This gathers many of the solid substances of the blood into its meshes and the consequent mass constitutes a *clot*. The change of fibrinogen into fibrin is due to the effect of a substance known as thrombin, which is formed by the action of the calcium salts of the blood on a substance termed thrombokinase, which is derived from the leucocytes and blood-platelets on their disintegration. **B. corpuscles**, the red and white cells of the blood—see *Corpuscles*. **B. count**, the process of determining the number of corpuscles in the blood by counting those in a small definite amount. **B. crystals**, crystals of hematin (a crystalline substance in blood-clots) in the blood. **Defibrinated b.**, blood from which the fibrin has been removed; this is done by stirring freshly shed blood, the fibrin collecting in a shredded mass on the stirring utensil. **Laked b.**, blood in which the red blood corpuscles have disintegrated. **B. plasma**, the fluid portion of the blood. **B. plates or platelets**, very minute blood corpuscles; it has not been decided if they are independent cells or fragments of disintegrated cells. It is thought that they contain thrombokinase, which is set free when they become disintegrated and helps in the coagulation of blood. **B. poisoning**, see *Septicemia* and *Toxemia*. **B. pressure**, the tension which the blood exerts upon the walls of the b. vessels. **B.**

tumor, swelling containing an abnormal amount of blood; e.g. a hematoma, an aneurism. An angioma is a tumor composed of b.-vessels. **B.-vessel**, an artery, capillary, vein, or sinus.

bloodless. (1) Without blood. (2) Anemic. (3) Said of an operation performed with little loss of blood.

bloodletting. The withdrawal of blood from the body for therapeutic purposes by wet cupping, scarification, leeching, or phlebotomy.

blue. A color. **B. baby**, the name given to an infant on account of its color when the orifice, which exists normally between the two auricles of the heart during intrauterine life, fails to close at birth. **B. mass**, a medicinal preparation containing mercury 33 per cent., glycerhiza, althea, etc. **B. ointment**, an ointment containing 50 per cent. mercury. **B. pills**, pills made from b. mass.

body. (1) The animal frame with its organs and skeletal tissues. (2) A cadaver. (3) The largest part of an organ. **B. louse**, see *Pediculi*.

boil. See *Furuncle*.

bo'lus (Gr. *bolos* = a lump). A small mass. A pill-like preparation of medicine, but larger and softer than the ordinary pill.

bone. The hard connective tissue that forms the framework of the body. It consists of about 50 per cent. water and 50 per cent. solid matter, the solids consisting chiefly of cartilage hardened by impregnation with inorganic salts, especially carbonate and phosphate of lime. The proportion of lime in bone gradu-

ally increases and in old age there is such a large proportion that the bones are brittle and break easily. The outer surface of bone is less porous than the inner and is spoken of as *compact tissue*; the more porous portion is called *cancellous tissue*. The compact tissue is traversed by the *Haversian system*, which consists of canals and spaces for the passage of blood and lymph; the cancellous tissue contains large marrow cavities. Bones are covered, exteriorly, by a membrane—the *periosteum*—upon which they are largely dependent for their blood supply. They are classed, according to their shape, as *flat*, *irregular*, *long*, and *short*. Many of the long bones have a central canal which contains marrow.

B. cells,—osteoblasts—or the cells that develop into bone.

B. conduction, the transmission of sound to the center of hearing in the brain through the bones of the skull; see Conduction. **B. marrow**, see Marrow.

Sesmoid b., a small osseous mass developed in tendon at a point where the latter is subject to pressure; *e. g.*, a patella or knee-cap.

Wormian b., one of the small irregular ossicles found on the edges of the cranial bones where the latter come together.

bo'rax. A sodium salt of a form of boric acid. It is found in some arid countries and is made by combining a complex boric acid with sodium. Its chief use is as a detergent and for softening hard water; also, it is sometimes used medicinally, especially in fermentative dyspepsia. Dose, 5–30 grains.

bo'ric acid. Known also as

boracic acid. An odorless white crystalline powder obtained by condensation and evaporation from certain mineral springs; also, by the action of sulphuric acid on borax. Boric acid solution is used as an antiseptic wash, especially for the eyes, mouth, and bladder, and the ointment is often used in the dressing of burns, blisters, etc. Boric acid is also much used as an antiseptic for the preservation of food and is generally considered one of the least harmful of the substances so used.

bo'ron. A non-metallic element; it is the base of borax and boric acid.

bougie *boo-zhe'*. A slender instrument used for examination, and in the treatment of the urethra and other canals.

bouillon (Fr. *bouillir* = to boil). A clear soup or broth, used as food and, in laboratory work, as a basis for culture media. As a food it has little nutritive value, but it serves to supply the body with water and, if well seasoned, to excite the appetite and flow of digestive juices. One method of preparing bouillon for culture media is to take:

| | |
|---------------------------------|----------|
| Beef-extract (such as Liebig's) | 3 grams. |
| Peptone, pure (Witte's) | 10 " |
| Sodium chlorid (common salt) | 5 " |
| Water | 1 liter |

The solid ingredients are dissolved in water, and the mixture is boiled for a few minutes. It is made neutral or very faintly alkaline by adding a solution of sodium hydroxide, drop by drop, the reaction being tested at intervals with litmus-paper. As soon as the proper reaction is reached the

broth is filtered through filter-paper. The filter-paper is folded and creased, placed in a glass funnel, and moistened with water before using. After filtration the medium is placed in properly plugged tubes or flasks, and is sterilized once in the autoclave, or in the steam sterilizer for fifteen minutes or longer on each of three consecutive days.

bo'vine (Lat. *bovinus*=pertaining to oxen). Oxlike. Pertaining to or derived from oxen.

bow'el (Lat. *botellus*=a bowel, a little sausage). The intestine.

bow-leg. An outward curve or bow in one or both of the lower limbs.

box-wood. Wood of the box tree. It is very hard and can be cut into exceedingly thin strips without splitting; it is, therefore, much used for splints that are to be fitted around an injured part.

brachial *bra'-ke-al* (Gr. *brachion*=the arm). Of, or pertaining to the arm. **B. artery**, the continuation of the subclavian artery that extends down the inside of the arm, from the axilla to elbow. **B. plexus**, a plexus of nerves in the neck and axilla.

bra'chium. (1) The arm above the elbow. (2) An armlike process.

brachycardia *bra-ke-kar'-de-ah*, also **bradycardia** (Gr. *brachus*=slow and *kardia*=heart). Abnormal slowness of the pulse.

brachycephalus *bra-ke-sef'-fa-lus* (Gr. *brachys*=short and *kephalos*=head). An egg-shaped skull.

brain. The soft mass of nervous

matter contained within the skull. It consists of five main parts, the *cerebrum*, the *cerebellum*, or *hind brain*, the *mesencephalon* or *mid-brain*, the *pons*, and the *medulla oblongata*. **B. fag**, mental exhaustion. **B. fever**, see Meningitis. **B. storm**, sudden paroxysms of anger or other phenomena due to cerebral disturbance.

bran. The outer covering of wheat. **B. bath**, see Bath.

bran'dy. A spirit obtained by the distillation of wines and from various fruits. It contains from 40-50 per cent alcohol, which is produced by the fermentation of the fruit sugar. Cognac is made by distilling good white wines. Many of the cheaper brandies are made from the refuse of the grapes and the wine vats. When freshly distilled, brandy is almost colorless, but, when stored in casks, it assumes a light amber color. The darker brown shades of brandy are produced artificially, usually by the use of a solution of caramel. For therapeutic uses of brandy see Alcohol. Brandy is often used instead of other forms of alcohol when there is a tendency to diarrhea, as it contains tannin and is therefore constipating.

break. (1) A fracture. (2) The interruption of an electric current. **B. bone fever**, See Dengue.

breast. (1) One of the mammary glands. (2) The upper anterior aspect of the chest.

breath. The air taken into and expelled from the lungs in respiration.

breathing. See Respiration. **Mouth B.**, breathing with the mouth open.

breech. The buttocks.

breed. To give birth to, to cause to exist, to rear.

brew. To cook. To prepare a liquor from malt, hops, etc., by boiling or steeping.

bridge. A device for replacing a missing tooth, or teeth, by fastening it, or them, to some of the natural teeth. **B. of the nose,** the upper bony part of the nose, formed by the junction of the nasal bones.

brim. An edge or border. **B. of the pelvis,** the edge between the false and true pelvis, *i. e.*, the superior strait of the pelvis.

bro'mal hy'drate. A drug made by the action of bromin on alcohol. It is used as an hypnotic. Dose, grains 2-5.

bro'mid. Any of the salts composed of bromin and a base, *e. g.*, sodium bromid, potassium bromid, etc. The salts are nerve depressants and are sometimes used in the treatment of nervous disorders and to induce sleep. Dose of ammonium, lithium, potassium, and sodium b., 5-20 grains.

bro'min (Gr. *bromas* = a stench). A non-metallic, liquid element, that gives off noxious vapors. Bromin occurs in nature almost entirely in the form of bromids, which are found in many salt springs and salt deposits.

bro'minism. An abnormal condition produced by the excessive use of bromid compounds in which some or all of the following symptoms will be present: An eruption or acne of the skin, drowsiness, cold extremities from defective circulation, general depression of all the vital processes. When necessary for a patient

to continue taking bromid for some time, the bowels and kidneys should be kept active in order to prevent the accumulation of bromid in the system, and the skin eruption may be lessened or prevented if the skin is washed frequently, since the acne is due, it is thought, to irritation of the skin by the drug, the latter being partly eliminated in the perspiration.

bronchi *brong'-kī*, sing. **bron'-chus** (Gr. *bronghia* = the bronchial tubes). The two tubes which branch off on either side from the termination of the trachea and extend, one to the right, and the other to the left lung.

bron'chia. Smaller bronchial tubes than the two bronchi, but larger than the bronchioles.

bronchiectasis. The dilation of a bronchus or the bronchia, which condition causes cough, dyspnea, and copious expectoration.

bronchioles *brong'-ke-ōles*. The very minute bronchial tubes formed by the subdivision of the bronchia.

bronchi'tis. Inflammation of the bronchial tubes. The condition may be acute or chronic. It is usually the result of either exposure to cold, the inhalation of irritating substances, or acute germ diseases. It may extend, especially in children, and result in broncho-pneumonia. The symptoms are fever, headache, malaise, cough, and abundant sputum. The treatment consists in keeping the patient warm, quiet, and well nourished. Steam inhalations and hot foot baths are often prescribed.

bronzed-skin. A bronze color of the skin characteristic of Addison's disease, *i. e.*, inflammation of the suprarenal capsules.

brow. The forehead.

Brunner's glands, known also as *duodenal* glands. Small glands contained in the sub-mucous layer of the duodenum. They secrete the *succus entericus*—the intestinal digestive juice.

bu'bo (Gr. *bubōn*=the groin). Enlargement and hardening of lymphatic glands particularly those of the groin and axilla, due to absorption of infectious matter. They are seen more especially in connection with syphilis, gonorrhea, and the bubonic plague.

bubon'ic plague. A very fatal infectious disease, common in the Orient, especially India. It is caused by the *Bacillus pestis bubonica*. It is so called on account of the buboes which are present in the more common form of the disease.

bucca buk'-ah. The cheek.

buc'cal (Latin *bucca*=the cheek). Pertaining to the cheek or mouth. **B. glands,** small glands, situated in the mucous membrane of the mouth, which secrete saliva.

bulb. A rounded expansion of a canal, vessel, or organ.

bul'la (Lat. *bulla*=a bubble). (1) A large blister. (2) A dilation or rounded projection.

bul'len. The chaff of flax or hemp. The seed-vessel of some plants.

bun'ion. Inflammation and thickening of the bursa of the joint of the big toe.

buret'. A graduated glass tube, used for measuring.

Burgundy wine. A sweet wine containing 6-7 per cent. alcohol.

burner. **Argand b.,** a burner for oil or gas that has an inner tube for supplying air to the flame in order to facilitate combustion. **Bunsen b.,** a burner, named after the inventor, which has an adjustment whereby the air holes at the bottom of the tube can be closed or open and the flame by this means made either luminous or non-luminous. If the holes are closed, the flame burns luminously, *i. e.*, it will give light, but a comparatively small amount of heat. It will be of a yellow color and leave a deposit of soot—unburned carbon—on anything held in it. If the holes are open, enough air will enter the tube to supply sufficient oxygen to oxidize all the carbon, and the flame will be non-luminous, of a bluish color, it will give greater heat—because a greater amount of oxidation is going on—and will not deposit soot—since the carbon is oxidized.

bur'sa (Gr. *byrsa*=a wine skin). One of the many hundred small fibrous sacs in the body. Many of the bursæ are lined with synovial membrane. They are situated between parts which move upon each other, as two muscles, two tendons, a muscle or tendon, and a bone, or skin and bone. The two surfaces of a sac that face each other are kept moist with synovial secretion and friction thus prevented.

bursi'tis. Inflammation of a bursa.

bu'tane. A substance derived from coal-tar that has anesthetic properties.

but'tock or **buttocks**. The gluteal prominence, the nates or breech.

butyl *bu'-til*. A hydrocarbon radical. **B. chloral hydrate**, a substance obtained by the action of chlorin on acetic aldehyd. It is used as an analgesic. Dose, 5-15 grains.

bu'tylene. A gaseous hydrocarbon.

bu'tyrate. A salt of butyric acid.

buty'ric. Derived from butter.

C

C. The symbol used in chemistry for carbon.

Ca. The symbol for calcium.

cacao *kak-a'-o*. The bean and seed of the *Theobroma cacao* tree. Cocoa, chocolate, and cocoa butter are obtained from these seeds. The butter is about the consistency of tallow. It is used as an unguent and as a basis for suppositories, because it melts at the temperature of the body and does not become rancid.

cachectic *ka-kek'-tic*. Pertaining to cachexia.

cachet *ka'-sha*. Two hollow discs of wafer paper into which a powder can be put and the two discs attached by moistening their edges in water and holding them together.

cachexia *ka-keks'-e-ah*. A state of general ill-health and malnutrition.

cacodyl *kak'-o-dil* (Gr. *kakodes* = ill-smelling). An arsenic derivative. It is a colorless liquid with a foul odor. It gives off a poisonous vapor that takes fire in the air.

cacod'ylate. A salt of cacodylic acid. These salts are used

in the treatment of anemias and cachectic conditions.

cac'tus. A drug used as a vasomotor and heart stimulant. Dose, fluid-extract, 2-5 minims.

cadav'erous. Resembling a cadaver or corpse.

caffein *kaf'-e-in*. An alkaloid derived from the coffee berry. It is used as a heart stimulant, cerebral excitant, and a diuretic. Dosage: 1-5 grains; citrated c.—*i. e.*, caffen and citric acid—2-10 grains. c. hydrobromate, $\frac{1}{2}$ -2 grains; c. and sodium benzoate, 2-10 grains; c. and sodium salicylate, 2-10 grains.

caff'feinism. A morbid condition in which there is nervousness, tremor, insomnia, restlessness, etc., due to the excessive use of coffee.

caisson disease *kā'-son dis-ēz'*. The symptoms produced as the result of exposure to increased atmospheric pressure as are divers. The most pronounced symptoms are: pain in the joints followed by paralysis, vomiting, and gastralgia. Coma and death may result.

cal'amus (sweet flag). A drug used as a carminative. Dose: fluid-extract, 5-30 minims.

calcaneum *kal-ka-ne'-um*. Called also the *os calcis*. The heel bone.

calcareous *kal-ka'-re-us* (Lat. *calcis* = lime). Pertaining to or of the nature of lime.

calcify *kal'-si-fi*. To convert into lime.

calcine *kal'-sén* (Latin *calx* = chalk). To reduce to powder.

calcium *kal'-se-um*. A metallic element. It is the basis of bone. C. carbonate— CaCO_3 —chalk.

calculus *kal'-ku-lus* (Lat. *calculus*=a stone). An abnormal concretion, usually of mineral matter, occurring within the body. **Aural c.**, a lump of hardened cerumen-ear wax—impacted in the external auditory meatus. **Biliary c.**, a gall-stone in the gall-bladder or biliary passages. Such stones usually consist chiefly of cholesterin, bile pigment, and various salts; substances that, normally, are in solution in the bile. **Hepatic c.**, a gall-stone formed and remaining in the substance of the liver. **Renal c.**, a calculus formed in the kidney. **Urinary c.**, a stone formed in the kidney or bladder. **Vesical c.**, a stone formed in the urinary bladder.

calefacient *kal-e-fa'-she-ent* (Lat. *calidus*=warm and *facere*=to make). To make warm.

cal'enture. High fever. Sun-stroke.

calf *kaf'*. The fleshy part of the back of the leg, below the knee, formed chiefly by the gastrocnemius muscles.

ca'lix pl. **calices** (Lat.=a cup). A cup-shaped cavity.

callo'sum. See Corpus callosum.

cal'lous. Hard.

cal'lus (Lat.=hard). The exudate which occurs around the ends of broken bones and by means of which the latter become united. See Fracture. **Permanent c.**, the callus that remains and becomes transformed into true bone. **Provisional c.**, the excess callus that may be felt around the point of fracture for some time after the bone is united, but which is gradually absorbed and carried away by the blood.

calm'ative. (1) Quieting. (2) A sedative medicine.

cal'omel (HgCl). Mercurous chlorid. A white, insoluble powder that is used as a cathartic, antisyphilitic and alterative. Dosage: Calomel is given in different ways; e. g., $\frac{1}{10}$ grain every half hour until 10 doses are taken; $\frac{1}{4}$ grain every half hour until 4 or more doses are taken; or in mass doses of from 1-10 grains. When there is vomiting, it is well to give the calomel in capsules and with as little water as possible since less of the powder will be vomited if there is not much water. Sodium bicarbonate is combined with the calomel when large doses are given as this obviates the danger of any of the calomel being converted into bichlorid of mercury. A dose of calomel is usually followed in a few hours by one of salts because (1) the c. acts mostly on the upper portion of the intestine and the salts on the lower part, (2) the salts will cause the washing out of excess calomel and prevent the ill effects that sometimes follow large doses of this drug.

calorim'eter (Lat. *calor*=heat, and Gr. *metron*=a measure). An instrument for measuring the amount of heat that a body absorbs or gives out.

cal'ory or **calorie** (Lat. *calor*=heat). A heat unit. **Large c.**, the amount of heat necessary to raise 1 kilogram of water 1°C. **Small c.**, the amount of heat required to raise 1 gram of water 1°C. It is the small calory that is usually referred to in connection with dietetics.

calum'ba also **calumbo.** A drug, obtained from the root of a palm of Eastern Africa, that is used as a bitter tonic and

stomachic. Dose: tincture, 1-2 drams; fluid-extract, 5-20 minims.

calyces *kal'-is-ēz*. Same as Calices.

cambogia *kam-bo'-jia*. See Gamboge.

camisole *ka'-mis-ōl*. A strait-jacket, sometimes used for the restraint of violent patients.

cam'phor. A substance obtained from camphor trees and a number of other plants. Medicinally, it is used as a carminative, a heart stimulant, a nerve sedative, a diaphoretic, and, externally, to relieve itching. Dosage: 15-60 minims; water, $\frac{1}{4}$ -1 ounce.

canal'. A narrow passage or channel.

canalic'ulus. A small canal.

cancellous *kan'-sel-lus* (Lat. *cancellus*=a lattice or railing). Resembling lattice work, having a spongy or lattice-like structure. **C. tissue**, the less compact bone tissue.

cancer *kan'-ser*. A malignant growth or tumor. See Tumor.

can'cerous. Of the nature of cancer.

cane sugar. See Sugar.

ca'nine (Lat. *canis*=a dog). Resembling a dog. **C. teeth**, the sharp-pointed teeth, four in number, situated one on either side of the incisors—front teeth—in each jaw.

can'nabis. The Latin name for hemp. **C. Indica**, a form of hemp grown in hot countries where it is used extensively instead of tobacco, and extracts of it are used in syrups and confections. It is known also as *hashish* and *bang*. Medicinally, it is used as a hypnotic, as an anodyne, and as an addition to cough mixtures to allay irritation of the

mucous membrane. Dosage: Extract, $\frac{1}{8}$ -1 grain; fluid-extract, 2-5 minims; tinctures, 5-20 minims.

can'nula. A small tube.

canthar'ides (pl. of *cantharis*). Certain Spanish flies, the powdered bodies of which are used medicinally, chiefly externally in the form of a plaster or in collodion. See Blister.

cantho'tomy (Gr. *kanthos*=the angle of the eye and *tomy*=to cut). Surgical incision of a canthus.

can'thus (Gr. *kanthos*=the angle of the eye). The corner of the eye where the upper and lower lids meet. The inner canthus is called the greater; and the outer, the lesser canthus.

can'ula. See Cannula.

caoutchouc. Gum elastic or india rubber.

capa'city. The extent of power to contain, hold, or receive. Capaciousness.

capeline *kā'-pe-lin*. A bandage used for the head or the stump of an amputated limb.

cap'illary (Lat. *capillaris*=hair-like). (1) Resembling a hair. (2) Any one of the small blood-vessels which serve to connect the arteries and veins and to allow of the passage of nutrient matter and oxygen from the blood into the tissues and of waste matter from the tissues into the blood. (3) The minute branches of the lymph vessels.

cap'ital (Lat. *caput*=the head). Pertaining to the head. Important. **C. operation**, a serious operation.

cap'sicum. Cayenne pepper, red pepper. For medicinal purposes, capsicum is used

externally as a rubefacient, internally as a carminative. Dosage: Fluid-extract, 1-5 minims; tincture, 15-30 minims.

cap'sule. (1) A small case used to enclose medicine. A capsule is readily dissolved in the stomach, setting free its contents. (2) A membranous or fibrous sac surrounding an organ or part. **Suprarenal c's**, small glands that rest one upon either kidney and produce an internal secretion named *adrenalin*. This secretion seems to be connected with the maintenance of tone of the heart and blood-vessels. **Tenon's c.**, a serous membrane sac one side of which is attached to the posterior surface of the eyeball and the other to the fat that occupies the back of the orbit and supports the eyeball.

car'amel. A brown substance obtained by heating sugar.

car'away. The seeds of a plant belonging to the parsley family, also extracts of the seeds which are used medicinally as a carminative and to disguise the taste of other medicines.

carbohy'drate. A compound consisting of carbon, hydrogen, and oxygen, the two latter elements being in the proportion to form water. The carbohydrates include the monosaccharids ($C_6 H_{12} O_6$) *e. g.*, glucose or dextrose, levulose, galactose; the sucroses or disaccharids ($C_{12} H_{22} O_{11}$) *e. g.*, cane sugar, lactose, maltose; the amyloses or polysaccharids ($C_6 H_{10} O_5 n$) *e. g.*, starch, glycogen, cellulose, dextrins, gums.

carbolic acid, known also as phenol, phenyl alcohol, and

coal-tar creosote. It is obtained by the dry distillation of coal and is the chief constituent of the acid portion of coal-tar oil. The carbolic acid of commerce is soluble in about 15 parts of cold water, *i. e.*, a saturated solution will be 6 or 7 per cent. Carbolic is very poisonous and the crude drug is exceedingly corrosive and is difficult to dissolve in water; great care must therefore be observed in preparing solutions. The water used should be about 100° F. Carbolic is used chiefly as a disinfectant. A $\frac{1}{2}$ per cent. solution has been found to destroy sporeless organisms in a few minutes, but, for practical purposes, exposure of the material to be disinfected for one hour to a 5 per cent. solution is advised. Carbolic can not be depended upon to destroy spores; a 5 per cent. solution has failed to do so in two days.

car'bolize. To fill or treat, with carbolic.

car'bon (Lat. *carbo* = a coal). (Symbol C.) A non-metallic element. The diamond is nearly pure carbon and charcoal, graphite and anthracite are approximately so.

car'bonates. Salts of carbonic acid.

carbon diox'id. (CO_2) known also as *carbonic acid gas* and when dissolved in water as *carbonic acid*. A colorless gas, about 1.524 times as heavy as air. It is produced by any form of oxidation of organic matter; for this reason it is generated in the animal body and in the processes of fermentation, putrefaction, etc. It is contained in many aerated waters and sparkling wines. Carbon dioxid can

be identified by the white precipitate—calcium carbonate—which it forms when passed into a solution of lime.

carbon'ic acid. Carbon dioxid plus water.

car'bonize. To burn, to convert into carbon.

carborun'dum. A compound of carbon and silicon. The method of preparing carborundum was discovered in attempts to produce diamonds artificially. It consists of very hard, purple crystals, which are used for grinding and polishing hard substances.

car'buncle (Lat. *carbunculus* = a little coal). A circumscribed inflammation of the subcutaneous tissue characterized by a dark-red painful node that terminates in suppuration and, usually, discharges through several orifices. The exciting cause is a pus-producing microbe; the predisposing cause, lowered vitality. The condition is usually associated with constitutional disturbance.

carcinoma *kar-sin-o'-ma* (Gr. *karkinos* = a crab). Cancer. A malignant tumor composed of gland cells. It may occur wherever glandular tissue is present, but the most common sites are the breasts, uterus, stomach, intestines, pancreas, and kidneys. There are several varieties which are distinguished by special names. See Tumor.

carcino'matous. Of the nature of cancer.

car'damon. A drug obtained from an Asiatic plant. It is used as a carminative. Dosage: Fluid-extract, 5-15 minims; compound tincture, 1-2 drams.

car'diac (Gr. *kardia* = the heart) Pertaining to the heart.

cardialgia *kar-de-al'-jia* (Gr. *kardia* = the heart and *algos* = pain). A form of indigestion popularly known as heart-burn, in which there is excessive acidity of the gastric juice, flatulence, and discomfort.

cardiasthe'nia. A neurasthenic affection of the heart.

car'dinal (Lat. *cardo* = a hinge). Of primary importance.

car'dio (Gr. *kardia* = the heart). A prefix used to indicate the heart or cardia.

car'dio-accel'erator. That which quickens the heart's action. Said of the nerves supplied to the heart from the sympathetic system, stimulation of which quickens the heart's action, and of drugs which produce a like effect.

cardiodynia *kar-de-o-din'-e-ah.* Pain in the heart.

car'diogram. A tracing produced by a cardiograph.

car'diograph. An apparatus that is used to ascertain the nature of the heart's movements.

car'dio or car'diac-inhib'itor. That which slows the heart's action. Said of the vagi nerves, stimulation of which has this effect, and of medicines which slow the pulse.

cardiom'eter. An instrument used to ascertain the force of the heart's action.

caries *ka'-rēz* (Lat. rotten). Decay and death of bone associated with inflammation and the formation of abscesses in the periosteum and surrounding tissues.

Carl'sbad salt. A salt obtained from the mineral springs of Carlsbad. Used as a laxative.

car'min. A red coloring matter obtained from cochineal.

carmin'ative (Lat. *carmen* = a charm). Any drug which fur-

thers the expulsion of gas from the intestine.

carot'id (Gr. *karoō*=I put to sleep). The name of some large arteries in the neck; there are the right and left common carotid—the former branching from the innominate artery and the latter from the arch of the aorta; they both subdivide into two branches, the internal and external carotids. These arteries were so named because it was once thought that sleep was induced by the blood flowing through them.

car'otin. A coloring matter extracted from carrots.

car'pus (Gr. *karpōs*=the wrist). The eight bones forming the wrist.

Car'ron oil. Equal parts of lime-water and linseed oil.

car'tilage (Lat. *cartilago*). Commonly known as gristle. An exceeding strong, tough, and, except the white variety, elastic connective tissue. It is composed chiefly of a substance known as *collagen*, which is resolved into gelatin by boiling. In the adult, cartilage exists chiefly in the joints, the walls of the chest, and in various tubes which are to be kept permanently open; *e. g.*, the air-passages, nostrils, ear. **Hyaline c.**, cartilage with a granular matrix. **Permanent c.**, cartilage which remains unossified throughout life, so called in contradistinction to **temporary c.**, which name is applied to the cartilage that composes the fetal skeletal and is later replaced by bone. **White c.**, a white non-elastic form of cartilage. **Yellow c.**, elastic cartilage.

cascar'a amarga (Spanish bitter bark). A drug obtained from

the bark of a tree native to Mexico and used as an alterative and tonic. Dosage: extract, 5-10 grains; fluid-extract, 15-60 minims. **C. sagrada** (sacred bark), a drug obtained from the bark of a tree native in the Western States of America. It is used as a cathartic and tonic. Dosage: extract, 1-6 grains; fluid-extract 15-60 minims.

cas'carin. A resinoid or glucosid from cascara. Dose 1-2 grains.

casein *ka'-se-in* (Lat. *caseus*=cheese). The protein substance into which the caseinogen of milk is transformed when the latter is curdled. It is soluble in dilute acids and alkalies. It is the basis of cheese. **Vegetable c.**, a substance found in some vegetables, which resembles the casein obtained from milk.

casein'ogen. One of the proteins of milk. When acted upon by acid or rennet it produces casein.

ca'seous. (Lat. *caseus*=cheese). Resembling cheese.

cassa'va. A plant from the roots of which a starch is obtained that, when dried and purified, is known as *tapioca*.

cassia *kash'-e-ah*. A drug obtained from the bark of the cinnamon tree; it is used as an astringent in diarrhea and as a carminative. Dosage: fluid-extract, 10-20 minims; oil, 1-3 minims.

cast. (1) A minute mass of plastic material that has assumed the shape of the tube in which it has been retained. Casts are named (*a*) according to the organ from which they are expelled; *e. g.*, renal casts and (*b*) according to their constituents; *e. g.*, blood c., epithelial c., fatty c., etc.

(2) The popular name for strabismus.

cas'tor oil, *oleum ricini*. A fixed oil expressed from the beans of the *Ricinus communis*, and used as a cathartic and galactagoguc, Dose, 1 dram -2 ounces.

castra'tion. Removal of the testicles. **Female c.**, removal of the ovaries.

cas'ual. Relating to casualties, accidents.

cata kat'-ta. A prefix, derived from the Greek, signifying down.

catab'asis. The stage of decline in disease.

catab'olism. The destructive processes of metabolism. They consist largely of oxidation. **C.** is the opposite of anabolism.

cat'alepsy (Gr. *kata*=down and *lepsis*=a seizing). A condition in which there is a loss of sensibility and of voluntary motion, the limbs tending to remain for hours, and even days, in any position in which they are placed. It usually occurs in connection with nervous disorders.

catal'ysis (Gr. *kato*=down and *lyo*=to loosen). Acceleration of a chemical or physical reaction by the action of a catalyzer.

cat'alyzer. Any agent which hastens or furthers a chemical or physical reaction, but does not itself enter into the reaction, *e. g.*, the enzymes of the body which cause oxidation to take place at a much lower temperature than it would without their aid.

catame'nia (Gr. *kata*=down and *men*=a month). The monthly discharge from the uterus, menstruation.

cat'aplastm. A poultice.

cat'aract (Gr. *katarasso*=to rush down). Opacity of the crystalline lens of the eye due to impregnation with some opaque substance. According to the texture of this substance, the cataract is known as *soft* or *hard*. The latter occur most commonly in the aged, the former at any age, but most frequently in children, in whom it can be seen as a bluish-white discoloration in the pupil. Hard cataracts are usually darker in color and less readily seen. Cataracts cause partial or entire loss of vision; they are, however, generally amenable to surgical treatment.

catarrh kat-ar' (Gr. *kata*=down and *rheō*=to flow). Inflammation of a mucous membrane associated with a free discharge.

catechu kat'-e-choo. A drug extracted from the wood of the *acacia catechu* and used for its astringent properties, as a gargle, in tonsillitis, pharyngitis, etc.; and, internally, in the treatment of diarrhea. Dose of the compound tincture, 1-2 drams.

cat'gut. Ligature material prepared from sheep's intestines.

cathar'sis (Gr. *katharsis*=purifying). Cleansing, purging.

cathart'ic. A drug that causes evacuation of the bowels. Cathartics are used to unload the bowels and to remove water from the system. **Cholagogue c's**, cathartics which increase the evacuation of bile. **Drastic c's**, very powerful cathartics. **Hydragogue c's**, those which cause watery evacuations. **Laxative c's**, those with a mild action. **Purgative c's**, those which

cause greater catharsis than laxatives. **Saline c's**, salts which cause catharsis.

cath'eter. A tubular instrument used for removing fluids from a cavity of the body, especially the bladder.

catheteriza'tion. The passage of a catheter.

cath'ode (Gr. *kata*=down and *hodos*=a way). (1) The negative or copper pole of an electric battery; *i. e.*, the pole by which the electric current leaves the electrolyte through which it has passed. The cathode is the opposite of the anode. (2) The negative electrode of a vacuum tube, etc. C. rays, rays given off from the cathode of a vacuum tube, when they strike solids X-rays are generated.

cat'ion. The electric positive ion or the element of a molecule which in electrolysis goes to negative pole or cathode. This ion is called the cation because it seeks the cathode.

cauda kaw'-dah (Latin for a tail). Any tail-shaped projection. **C. cerebelli**, a process of the cerebellum. **C. equina**, the fibrous termination of the spinal cord.

caul kaw'l (Old Gael. *call*=a veil). (1) The omentum. (2) The amnion or fetal membrane which occasionally surrounds the head of a child at birth.

cause. The agent that produces an effect. **Constitutional c.**, defects within the body that further the contraction of disease. **Exciting c.**, that which is the direct cause of a disease. **Predisposing c.**, conditions which render an individual liable to disease. **Specific c.**, the germ or other agent that will produce a special disease.

caust'ic. Burning, corrosive.

cauteriza'tion. The application of the cautery.

caut'erize (Gr. *kauteriazō*=to burn with a branding iron). To burn with a cautery.

caut'ery (Gr. *kauterion*=a branding-iron). An instrument or caustic medicine for burning or searing the tissues. **Actual c.**, fire, a red-hot iron, etc. used for burning. **Paquelin's c.**, a form of cautery, called after the inventor, the main parts of which are a platinum tip, a chamber to contain benzine, a simple form of pump with which to force air through the connecting tubes of the apparatus to the tip. **Potential c.**, any caustic substance that can be used instead of heat for burning tissue.

cav'ity (Lat. *cavus*=hollow). A hollow space. The principal body cavities and the organs they contain are as follows:

| Body Cavities | | Organs in Cavity |
|------------------|------------------|--|
| Dorsal Cavities | Cranial Cavity | Brain |
| | Spinal Cavity | Spinal Cord |
| Ventral Cavities | Buccal Cavity | { Tongue Teeth Salivary Glands |
| | Nasal Cavity | |
| | Thoracic Cavity | { Esophagus Trachea Lungs Heart Blood-vessels |
| | Abdominal Cavity | { Stomach Spleen Pancreas Liver Gall-bladder Large and Small Intestines |
| | Pelvic Cavity | { Urinary Bladder Rectum (Female) Generative Organs |
| | | |

cayenne *ki'-en* pepper. See Capsicum.

cc. c.c. Abbreviations for cubic centimeter.

cecal *se'-kal*. Pertaining to the cecum.

cecitis *se-se'-tis*. Inflammation of the cecum.

cecum *se'-kum* (Lat. *cæcum* = blind). The blind pouch or cul-de-sac at the junction of the large and small intestines. The ileum, colon, and vermiform appendix open into it.

celiac *se'-le-ak* (Gr. *koilos* = hollow, belly). Relating to the abdomen.

celiectomy *se-le-ek'-to-me*. Removal of an abdominal organ by surgical operation.

celioscope *se'-le-o-skōp*, or *celoscope*. An instrument used for the illumination and examination of body cavities.

celiotomy *se-le-ot'-ō-me*. A surgical incision into the abdomen.

celitis *se-li'-tis*. Abdominal inflammation.

cell (Lat. *cellula* = a small cavity)

(1) One of the microscopically small protoplasmic masses of which the body is composed. The principal parts of a cell are an outer granular portion—the *cytoplasm*, a minute dot of more solid substance—the *nucleus*—in which are still smaller bodies—the *nucleoli* and, near the nucleus, a small body named the *centrosome* or *attraction sphere* which plays an important part in cell division. The chief chemical constituents of a cell are water, proteins, lecithin, cholesterin, and inorganic salts. Galvanic cell, see Anion and Electrolyte. **Germ c.**, a cell that develops into a spermatozoön or an ovum. **Non-nucleated c.**, a cell without a nucleus. **Sen-**

sory c., a nerve cell of the peripheral sense organs. **Sperm c.**, a spermatozoön.

cel'lular. Relating to or consisting of cells.

celluli'tis. Inflammation of cellular tissue.

cel'luloid. A substance composed chiefly of gun-cotton and camphor.

cel'lulose (Lat. *cella* = a cell and the Eng. suffix *ose*). A carbohydrate substance, allied to starch, which constitutes the basis or skeleton of most plant structures.

celot'omy (Gr. *kēlē* = a tumor and *temnō* = to cut). A surgical operation for the cure of hernia.

cement'. (1) The bone-like substance covering the roots of the teeth. (2) A substance used to fill cavities in teeth. (3) An adhesive substance used for sticking.

cen'ter. (1) The middle part. (2) Any one of the nerve-ganglia or plexuses that control the various functions of the body; *e. g.*, the mass of nerve cell-bodies known as the *auditory c.* because it is the part of the brain controlling the sense of hearing; the *cardio-inhibitory c.*, in the oblongata, which sends the impulses to the heart, by the vagi nerves, that retard its action; the *respiratory center* in the medulla oblongata which controls respiration; etc.

centi *sen'-ti* (Lat. *centum* = hundred). A prefix used to denote a hundred or a hundredth part.

cen'tigrade (Lat. *centum* = hundred and *gradus* = a step). Having one hundred degrees. **centigrade thermometer**, a thermometer so graduated

that 100 degrees is at the boiling point of water and 0 at the freezing point. To change degrees C. to those of F., divide the given degree by 5, multiply the result by 9 and add 32. To change F. to C., subtract 32 from the given degree, divide the result by 9, multiply the result by 5.

cen'tigram. The one-hundredth part of a gram.

centiliter *sen'-le-le-ter*. The one-hundredth part of a liter.

cen'timeter. The one-hundredth part of a meter.

cen'tric. Pertaining to or near the center.

centrif'ugal (Lat. *centrum* = center and *fugere* = to flee). Receding from the center. **Efferent c., machine**, an apparatus for separating solid and fluid constituents of a liquid by rotation.

cen'triole. A minute body within the centrosome.

centrip'etal (Lat. *centrum* = center and *petere* = to seek). Moving toward the center. Afferent.

cen'trosome. A minute body of protoplasm in cells which plays an important part in cell division.

cephalic *sef-fal'-ik* (Gr. *kephale* = the head). Pertaining to, or situated in, the head.

cephali'tis. Inflammation of the brain.

cephalocoele *sef-fal-o-sel*. Hernia of part of the brain.

cephalodynia *sef-fal-o-din'-e-ah*. Pain in the head.

cephalo'ma. A soft carcinoma.

cephalom'eter (Gr. *kephale* = the head and *metron* = a measure). An instrument for measuring the head.

cephaloplegia *sef-fal-o-ple'-jia*.

Paralysis of muscles of the head.

cephalot'omy. Cutting up of the fetal head to facilitate delivery.

cerasin *ser-a-se'-in*. A drug prepared from the resin of the bark of the wild cherry. Used as a diuretic and sedative. Dose 5-10 grains.

cer'ate or **ceratum** (Lat. *ceratum* = wax). A medicinal preparation intended for external use in which the drug is incorporated in wax.

ce'real (Lat. *cerealis* = pertaining to Ceres, the goddess of grain and tillage). The grain plants used for food.

cer'ealin. An enzyme extracted from bran that will change starch into sugar.

cerebel'lar. Pertaining to the cerebellum. **C. ataxia**, lack of muscular coordination as the result of some lesion of the cerebellum.

cerebel'lum (Lat. a little brain). The solid mass of nervous tissue that constitutes the back part of the brain. It is situated behind the cerebrum and behind, but almost on a plane with, the pons Varioli. It is one of the centers controlling equilibrium and coordination of movement.

cere'bral (Lat. *cerebrum* = the brain). Pertaining to the brain.

cerebrifu'gal. Said of nerves which carry impulses from the brain.

cerebrospi'nal. Pertaining to the brain and spinal cord.

cer'ium. A metallic element. **C. oxalate**, a salt of cerium and oxalic acid that is used as a sedative to check vomiting and coughing. Dose, 1-5 grains.

ceru'men (Lat. *cera* = wax).

The wax-like substance secreted by the ceruminous glands in the external canal of the ear. Its object is to prevent the entrance of foreign substances into the ear. Normally, there is only a small amount secreted, but irritation from any cause is likely to increase the quantity to such an extent that it will prevent the sound waves reaching the drum and so cause temporary deafness. A common method of removing such an impaction is to drop a few minims of peroxide of hydrogen into the ear—this softens the wax—and then irrigate the ear with hot water.

ceru'minous. Yielding wax. **C. glands,** the glands in the external meatus of the ear, which secrete cerumen.

cer'vix (Lat. the neck). The neck or any neck-like part. **C. uteri,** the lower constricted part of the uterus.

cervical ser'-vi-kal. Pertaining to a cervix.

Cesa'rean sec'tion. Removal of a fetus from the uterus through an incision made in the abdominal wall and the uterus. The operation was so named because Julius Cæsar was said to have been born in this way.

ces'tode. See Tapeworm.

Chagres Fever *tshag'-res.* A malignant form of pernicious malaria that was formerly very prevalent in the region of the Chagres River, Panama.

chalazion *kal-a'-ze-on* (Gr. *chalaza* = hail). A small cyst of one of the Meibomian glands of the eyelid, due to stoppage of its duct by retained secretion.

chalk. Carbonate of lime (CaCO_3).

chamber. A cavity or hollow. **Anterior or aqueous c. of the eye,** the space between the cornea and the iris which contains the aqueous humor. **Posterior or vitreous c.** the space between the iris and the lens of the eye; it contains the vitreous humor.

chamomile *kam'-o-mil* (Gr. *chamai* = earth and *melon* = melon, so called from the odor of its flower). A drug used as a carminative, antispasmodic, diaphoretic, and emmenagogue. Dose of fluid-extract, 15–60 minims.

Champagne' (named from Champagne in France, the town where it was originally made). An effervescent, sparkling wine, charged with carbonic acid gas. Champagnes contain from 5–13 per cent. alcohol. Their principal medicinal use is to allay nausea.

chancre *shang'-ker.* The small hard, indolent sore, produced by the syphilis organism—the *Spirochaeta pallidum*—at the point where it enters the body. The chancre may not appear for three or four weeks after infection takes place and it soon ulcerates, leaving a permanent scar. The chancre is known also as the *initial lesion* or *primary sore*. Discharge from it is highly infectious.

change of life. The menopause. Cessation of the menses.

chapt. Full of fissures.

char'coal. Coal prepared by charring organic matter—especially bones and wood—out of contact with air. Charcoal is used as a deodorant, absorbent, and, taken inter-

nally, as an antifermentative in gastric and intestinal disorders. Dose, 10-60 grains. Bone c. is known also as *bone-black* and *ivory black*.

cheirospasm *ki'-ro-spasm* (Gr. *cheir*=hand and *spasmas*=spasm or convulsion). Pain or cramp in the hand; *e. g.* writer's eramp.

chem'istry. The science or study which treats of the elements of matter and of the laws which regulate the combining of elements and the disintegration of compounds.

chemol'ysis (Eng. *chemic*=and Gr. *lysis*=a loosening). Disintegration of compounds by the use of ehemical agents.

chemotax'is (Eng. *chemic* and Gr. *taxis*=to arrange). The attraction or repulsion of certain organic cells for various chemical substances.

chiasma *ki-as'-mah* (Gr. *eross*). (1) A crossing. (2) The *optic commissure* or decussation of the optic nerve; *i. e.*, the two optic nerves meet, shortly after their point of entrance to the brain, and the fibers coming from the inner or nasal side of each eye cross to the optic nerve of the other eye.

chicken-pox. The common name for *varicella*. An infectious disease of unknown origin, that is characterized by an eruption somewhat similar to that of small-pox. The two diseases bear no relation to each other and *varicella* is not usually attended with any constitutional symptoms, other than a slight malaise and slight rise of temperature. Period of incubation 14-16 days.

chil'blain. Inflammation of the

superficial tissue of the toes feet, or fingers, due to eold.

chill. A sensation of extreme cold accompanied with shivering. The blood-vessels of the skin are contracted and the blood driven to the interior of the body. The condition may be caused by surroundings colder than the body or by nervous irritation. The latter cause is usually the result either of some disorder of the nervous system or of toxins produced by bacteria or defective metabolism. **C's and fever**, a common name for malaria. **Nervous c.**, chill or chilly sensation due to nervousness or excitement. Such a chill is not usually followed by a marked rise of temperature.

chirop'odist (Gr. *cheir*=the hand and *podos*=the foot). One who treats minor abnormalities, as callus and bunions, of the hands and feet.

chirurg'ean (Gr. *cheir*=the hand and *ergo*=to work=to work with the hand). The former name for surgeon.

chloas'ma (Gr. *chloazo*=to be pale green). Brownish-yellow discoloration of the skin occurring in patches as the result of abnormal deposition of pigment. This may be due to disease, as Addison's disease, malaria, tuberculosis, syphilis, etc.; to pregnancy; to severe irritation of the skin.

chlor'al. An oily, colorless fluid made by the action of chlorin on alcohol. Combined with water it forms chloral hydrate, which is used as a hypnotic. Dose, 5-20 grains. **Butyl c. hydrate**, a crystalline powder formed by the action of chlorin on aldehyd; dose, 5-20 grains. It is used as an hypnotic; it is not official.

Metachloral, a solid substance made by the action of sulphuric acid on chloral hydrate. It is used as a counterirritant and local anesthetic; it is not official.

chloralamid. An hypnotic, made by the interaction of chloral and formamid; known also as chloralformamidum. Dose, 20-40 grains.

chlora'lose. A compound of chloral and glucose. Used as an hypnotic. Dose, 3-8 grains.

chlo'retone. A compound made by the action of caustic potash on chloroform, and acetone. It is used as an anti-emetic, hypnotic, and, externally, as an antiseptic. Dose, 5-20 grains.

chlo'rin. A greenish-yellow gas which has a peculiar suffocating odor and an excessively irritating effect upon the throat and lungs. It is nowhere found free in nature, but its compounds are very common, and some of these will part with their chlorin very readily, especially hydrochloric acid and sodium chlorid. Chlorin is a germicide and is used for disinfecting, sometimes for fumigation; also, it is used for bleaching. Its power as a bleaching agent is due to the facility with which it will unite with hydrogen. When chlorin, or any one of its compounds used for bleaching, is put into a pot of boiling water, the steam is rapidly decomposed into its constituents, hydrogen and oxygen, because the chlorin unites with the hydrogen to form hydrochloric acid. The oxygen then unites with the staining agent on, or coloring matter of, the material placed in the water, and, thereby, decomposes it.

chlo'rinated. Charged with chlorin. **C. lime**, a compound of lime and chlorin much used as a disinfectant; a 5 per cent. solution, it is claimed, will kill non-spore-bearing bacteria in five minutes, and spores in one hour.

chlo'rodyne. A proprietary medicine containing chloroform, capsicum, canabis indica and hydrocyanic acid. It is used as a sedative and hypnotic. Dose, minims 5-30.

chlo'roform. A colorless, volatile liquid made by the action of chlorinated lime on methyl alcohol. It is used as an anesthetic, antiseptic, counterirritant, and, taken internally, as an anodyne, and carminative. Dosage: minims 1-10; spirits of chloroform, minims 30-60; emulsion of chloroform, half an ounce.

chlo'rophyll. The green coloring matter of plants by virtue of which plants can put the carbon dioxid CO_2 and water H_2O , which they get from the air, together to form carbohydrates (glucose, starch, cellulose, gums) and fats. These substances contain less oxygen than the plants get in the CO_2 and H_2O and the surplus passes into the air. Chlorophyll resembles the hemoglobin of the blood and, like it, contains iron.

chloro'sis (Gr. *chlōros* = green). A form of anemia, so called on account of the greenish hue which the skin assumes. It is characterized by a reduction in the amount of hemoglobin in the blood, rather than in the number of red cells. The individual suffers from shortness of breath, palpitation of the heart, perverted menstruation, and, as

a rule, indigestion. The disease most frequently attacks young girls living in unhygienic surroundings.

cholagogue *kōl'-ag-og* (Gr. *cholē* = the bile and *agōgos* = leading). A medicine which hastens the expulsion of bile from the gall-bladder and intestinal canal. The more common cholagogues are aloes, calomel, colocynth, jalap, rhubarb, podophyllum and sodium phosphate.

cholecystec'tomy (Gr. *cholē* = the bile, *kystis* = a sac and *ektoun* = excision). Surgical removal of the gall-bladder.

cholecysti'tis. Inflammation of the gall-bladder.

cholecystor'rhapsy. Suture of the gall-bladder.

cholecysto'tomy. Surgical incision of the gall-bladder.

chol'elith. A bile stone.

cholelithi'asis. The formation of biliary calculi.

cholelithot'omy. Surgical incision into the gall-bladder for the removal of stones.

choleme'sis. The vomiting of bile.

chole'mia. The presence of bile or bile-pigments in the blood.

chol'era (Gr. *cholē* = the bile). Asiatic c., a contagious disease caused by the *Spirillum cholerae Asiatica*. The germs are taken into the body more especially in infected drinking water and food. In the intestine, the germs multiply enormously and their toxins are absorbed by the blood. The primary symptoms are diarrhea, vomiting and general malaise. As the disease progresses the purging increases and, the intestines being emptied of fecal matter, the stools consist of water, salts and

mucus and have the typical *rice water* appearance. Symptoms of collapse appear, there is great loss of weight, thirst is excessive, and there is only a scanty secretion of urine. This *stage of collapse* lasts about 24 hours, if the patient survives, the *stage of reaction* follows and convalescence is slowly established. **C. infantum**, a very acute and fatal disease characterized by rapid emaciation, prostration, vomiting and a profuse serous diarrhea. It occurs almost entirely during the hot months and among infants fed on improperly cared for milk. It is the result of poisoning by the toxins of bacteria, but the specific germ, is still undetermined. **C. morbus**, an acute disease marked by purging, vomiting, thirst, moderate fever and great prostration. It is usually caused by improper food.

choles'terin (Gr. *cholē* = the bile and *stear* = fat). A monatomic, aromatic alcohol that is found in both animal and plant cells, especially in the white matter of nerve fibers. It, or a derivative, is always found in the feces in small amounts and is probably derived from the bile of which it is a constant constituent. It is thought that the cholesterin is a waste product of cell life and that it is taken from the blood by the liver cells and excreted in the bile. Cholesterin is not easily kept in solution and if bacteria, mucus, or other foreign solid substances gain entrance to the gall-bladder, they are likely to precipitate some of the cholesterin and form a nucleus around which it and bile-pigment will crystallize thus giving rise to gall-stones.

choleu'ria. Bile in the urine.

chon'dral (Gr. *chondros* = cartilage). Pertaining to cartilage.

chondro'ma. A cartilaginous tumor.

chon'dro-os'seous. Consisting of cartilage and bone.

chon'drosis. Cartilage formation.

chore'a. Known also as St. Vitus' dance. (Gr. *choreia* = a dance). A disease characterized by unconscious, involuntary, irregular, purposeless movements and muscular twitching and associated with irritability, depression, more or less mental impairment and general debility. The disease is thought to be due to germ infection and some authorities think that the causative organism is the same as that which produces acute endocarditis and rheumatism.

cho'rion. The second or most external of the membranes which envelop the fetus.

cho'roid (Gr. *chorion* = skin and *eidos* = form or like). The middle coat of the eye. It is attached to the under surface of the outer coat—the sclera—and consists almost entirely of an interlacement of small blood-vessels held together with a delicate connective tissue in which are many pigment cells. It serves, on account of its large supply of blood-vessels, to nourish the cornea, lens and retina and, being almost black, it makes a dark chamber of the eye like that of the photographer's camera.

choroidi'tis. Inflammation of the choroid.

chromat'ic (Gr. *chrōma* = color). Pertaining to color.

chro'matin. See Chromoplasm.

chromatu'ria. Abnormal coloration of the urine.

chro'mocyte. A pigmented—colored—cell.

chromogen'esis (Gr. *chrōma* = color and *gennaō* = to produce). The production of color.

chromogen'ic. Color producing. **C. bacteria,** bacteria which produce color in the substances in which they develop.

chro'mophil. A cell, tissue or the like that is easily stained.

chro'mophore (Gr. *chrōma* = color and *phoreo* = to produce). Any chemic group that determines the color of a compound or which will unite with other compounds or elements to form color.

chromophyto'sis. A discoloration of the skin produced by a vegetable parasite.

chro'moplasm. The network of a cell nucleus that is easily stained.

chro'moscope. An apparatus for testing color perception.

chro'mosome. One of the granular thread-like bodies, into which the chromoplasm in the nucleus of cells splits up previous to karyokinetic division. The cells of each species of animal have a definite number of chromosomes. The chromosomes of the egg-cell and sperm-cell contain, it is thought, the hereditary substance whereby the characteristics of the parents are transmitted to their offspring. The nature of this substance is unknown.

chron'ic (Gr. *chronos* = time) A disease that is of long duration. Not acute.

chyle *kī-le* (Gr. *chylos* = juice). The milky-looking emulsion

into which the fats of food are transformed by intestinal indigestion. The chyle fat is absorbed by the lacteals from whence it flows through the lymph vessels to the thoracic duct and thence into the left innominate vein. Thus it enters the blood and for hours, after a meal containing much fat, the blood will contain this chyle fat. It is gradually assimilated by the cells which can use it.

chyle'mia. The presence of chyle in the blood.

chylifica'tion (Lat. *chylus*=chyle and *facere*=to make). Chyle formation.

chyl'ous. Chyle-like.

chylu'ria. Chylous lymph in the urine. The usual cause of chylous urine is obstruction of the lymph channels from the bladder by minute worms—the *filaria bancroftii*—in consequence of which the vessels rupture into the bladder. See Filariasis.

chyme *kīm*. The semiliquid substance into which food is changed while it is in the stomach by the action of the gastric juice.

chym'ifica'tion (Lat. *chymus*=chyme and *facere*=to make). The process of gastric digestion. To form into chyme.

cicatricial *sik-a-tri'-shal*. Pertaining to a scar.

ci'catrrix (Lat. *a scar*). The scar or white mark remaining after a wound heals. The lack of color is due to absence of pigment in the new skin. Cicatricial tissue is not as elastic as normal tissue and a cicatrix is therefore likely to be puckered and contracted.

cil'ia, pl. of *cilium* (Lat.). (1) The eyelashes. (2) Short hair-like processes.

cil'iary. Pertaining to or of the nature of cilia. **C. muscle**, the circular muscle surrounding the iris. It and the iris regulate the size of the pupil and, consequently, the amount of light entering the eye.

cil'iated. Furnished with cilia.

cil'ium. Sing. of cilia.

cimicifuga *sim-e-sif'-u-gah*. A drug obtained from the roots of a plant—black snake-root—it acts as an analgesic, antispasmodic and heart depressant. Dosage: Fluid-extract, 15-45 minims; extract, 1-5 grains; tincture, 1-2 drams.

cinchona *sin-kō'-na*. A drug obtained from the bark of the Cinchona calisaya, native in South America. Named after the Spanish Countess de Chiconon, the wife of the ruler of Peru, who was cured of fever by the use of an Indian preparation of the bark. It acts as a stomachic, antiperiodic, and antipyretic. Quinine is its most important alkaloid. Dosage of cinchonia: Fluid-extract, minims 5-15; tincture, drams 1-2.

cin'chonism. The condition produced by the overuse of cinchonia or its alkaloids. It is marked by ringing in the ears, deafness and headache.

cinefac'tion (Lat. *cinis*=ashes and *facere*=to make). To reduce to ashes.

cin'namon. An aromatic substance obtained from the bark of the Cinnamomum trees. It is used as a flavor and, medicinally, as a carminative and astringent. Dosage: Fluid-extract, 10-20 minims; oil, 1-3 minims.

cion'otome (Gr. *kion*=the uvula and *tome*=a cutting). An instrument used for excision of the uvula.

Circle of Willis. An anastomosis of branches of the internal carotids and basilar arteries at the base of brain.

cir'cuit. The electrical communication between the poles of a battery. The circuit is said to be *closed* when it is arranged for the electrical current to pass and *open* or *interrupted* when this is not the case.

circula'tion. Movement in a circle, or a regular course. The flow of blood through the body. **Coronary c.,** the circulation in the muscular tissues of the heart. **Collateral or compensatory c.,** the flow of blood through anastomosing vessels when the main channels are obstructed. **Fetal c.,** circulation in the fetus, umbilical cord and placenta. **Portal c.,** the passage of venous blood from the gastro-intestinal tract and spleen, via the portal vein, to and through the liver and its exit through the hepatic vein. **Pulmonary c.,** the circulation of the blood through the lungs for oxygenation, called also the *lesser c.* **Systemic c.,** the general circulation as distinguished from the pulmonary; called also the *greater c.*

circumcis'ion (Lat. *circumcisio* = a cutting around). Excision of a portion or the whole of the prepuce—*i. e.*, foreskin of penis.

circumduc'tion (Lat. *circumducere* = to lead around). The active or passive circulatory movement of a limb in which it describes a cone-shaped figure, the joint of the extremity being considered the apex of the cone and the circle described by the distal end of the moving part, the base.

circumflec'tion (Lat. *circum* = around and *flectere* = to bend). To bend around.

cir'cumpose (Lat. *circumpono* = to place around). To place in a circle.

cir'cumscribe (Lat. *circum* = around and *scribere* = to write). To bound, to limit.

cir'cumscribed. Restricted to a limited space.

cirrhosis sir-rō'-sis (Gr. *kirrhos* = yellow). The hardening of an organ as the result of an increase of its fibrous tissue. The name was first used because of the reddish-yellow color of the liver when so diseased and the word is used almost exclusively in connection with the liver. **Alcoholic c.,** cirrhosis of the liver as the result of the excessive use of alcohol. **Atrophic c.,** a form of c. in which the liver becomes small and shrunken due to injury of its cells by poisons, such as alcohol, and their replacement by non-elastic scar tissue. The symptoms associated with the disease are due chiefly to interference with the portal circulation and the consequent congestion of venous blood in the stomach, intestines, pancreas and spleen. **Hypertrophic c. of Hanot,** a form of cirrhosis in which the liver becomes enlarged, smooth and hard. It is a rare condition.

cit'rate. Any salt of citric acid.

Cl. Chemical symbol of chlorine.

clamp. A surgical instrument used for compressing vessels.

clar'ificant. A clearing agent.

claudica'tion (Lat. *claudicare* = to limp). Lameness.

clav'icle (Lat. *clavis* = a key). The collar bone. It articu-

lates with the scapula and sternum.

cleav'age. Dividing. Splitting.

cleft. (1) Divided. (2) A fissure, a crevice.

climacte'ric. Critical, dangerous. Certain periods during life are said to be climacteric; *e. g.*, adolescence, puberty, and the menopause.

clim'atize. To become accustomed to a new climate. The same as acclimatize.

cli'max (Gr. *klimax*=a ladder). The highest point.

clin'ic (Gr. *klinē*=a bed). Examination or treatment of patients in the presence of students for the instruction of the latter. A lecture by the bedside.

cli'toris (Gr. *kleitoris* from *kleio*=to enclose). A small, elongated body situated between the labia at the anterior angle of the vulva. It is the seat of sexual sensation in the female.

cloa'ca (Lat. a drain, a sewer). (1) An opening which acts as an external outlet for the intestines and genito-urinary organs. This form of structure exists in birds, reptiles, some of the lower animals and, for a time, in the human embryo. (2) An opening in a necrosed bone.

clo'nic (Gr. *klonos*=turmoil). A convulsion in which the contractions are intermittent. See Convulsion.

clo'nus. Same as clonic.

clot. A soft semisolid mass of substance such as blood or lymph. A blood clot consists of the solid substances of the blood which have been precipitated from their solution in the blood. See Coagulation.

clove. The dried flower bud of the tree *Eugenia aromatica*. Used as a spice and, medicinally, as a carminative. Dosage: Fluid-extract, 5-20 minims; oil, 1-5 minims.

club-foot. A deformity of the foot due, as a rule, to some contraction of the muscles or tendons.

cly'sis (Gr. *klysis*). An enema or injection.

clys'ter. A clysis.

cm. Abbreviation for centimeter.

coag'uable. Capable of being coagulated.

coag'ulate (Lat. *cogere*=to drive together). To clot, to curd, to congeal.

coagula'tion. The act or process of being coagulated. **C. of blood,** the clotting of blood. This is thought to be due to the too rapid disintegration of leucocytes and blood-platelets and the consequent liberation from those cells of a substance known as thrombokinase that, with the aid of the calcium salts of the blood changes pro-thrombin to thrombin. The thrombin transforms the soluble fibrinogen in the blood into an insoluble substance known as *fibrin* which, being insoluble, is precipitated. The precipitate consists of a meshwork of fine threads which gathers into its substance the blood-corpuscles and a portion of the other solids of the blood. Some of the more common causes of the rapid destruction of leucocytes and platelets within the body are, the entrance of foreign matter—as air—into a blood-vessel; injury to the walls of a blood-vessel. Coagulation of blood outside the body, or at the mouth of a

vessel, as in hemorrhage, will be hastened by contact with a rough surface—as gauze—and heat, between 116–120° F.

coag'ulator. That which coagulates.

coag'ulum. A curd or clot.

coalesce'. (Lat. *coalescere* = to unite). To come together. To unite.

coales'cence. The act or process of uniting.

coali'tion. The union of separate bodies into a mass.

coal-tar. Tar that is produced in the destructive distillation of bituminous coal. Many medicines, dyes and various other commodities are derived from it.

coapta'tion (Lat. *coaptare* = to fit together). The adjustment of separate parts to each other.

cocain'. An alkaloid obtained from the leaves of the coca, a South American plant. It is used to produce local anesthesia, and local anemia; as a mydriatic and as a cerebrospinal and heart stimulant. Dosage: Fluid-extract, 1–4 drams. Cocain hydrochlorate, $\frac{1}{4}$ –2 grains.

co'cainism. The degenerate condition of the system, mental and physical, that follows the continued use of cocain.

cocainiza'tion. The act of injecting cocain. **C. spinal,** the injection of cocain into the subdural space at the bottom of the spinal cord so as to produce analgesia of the lower limbs and of the trunk as high as the upper part of the abdomen.

coc'cus—pl. **coc'ci**—(Gr. *kokkos* = a kernel). A round or oval bacterium. **Diplococci,** cocci which occur in media in

groups of two. **Staphylococci,** cocci which divide in two planes and, when they remain connected after fission, form grape-like clusters. **Streptococci,** cocci which divide in one plane and, when they remain connected, form chains. **C. cacti,** the cochineal insect.

coccygeal *kok-si-je'-al.* Pertaining to the coccyx.

coccyx *kok'-siks* (Gr. *kokkys* = a cuckoo). The last bone of the spinal column.* In early life this bone is separated, forming four bones. It received its name from its shape which was thought to resemble that of a cuckoo's beak.

coccydynia *kok-si-din'-eah.* Pain at the lower end of the spine.

cochine'al. The dried insect *Cocchineal cacti* from which various shades of red dyes are made and which is used in medicine as an antispasmodic and anodyne. Dosage Powder, $\frac{1}{8}$ grain; tincture, 20–30 minims.

cochlea *kok'-le-ah* (Lat. *cochlea* = a snail). (1) Anything of a spiral or snail shell form. (2) The anterior division of the internal ear which contains the essential peripheral parts of the sense of hearing.

co'dein. One of the alkaloids of opium. Its action is the same as morphin, except that it is more feeble and has especial powers as a cough sedative. Dosage: Codein, $\frac{1}{4}$ –2 grains. C. phosphate, $\frac{1}{4}$ –1 grain. C. sulphate, $\frac{1}{4}$ –2 grains.

cod-liver oil. A fixed oil derived from the fresh livers of the cod-fish. It acts as an alterative, and as a food. Its action is due both to its oily properties and to certain ex-

tractives that it contains. Synonym, Olcum morrhuae. Dose, 1-8 drams.

coeffi'cient. (1) Joint action. (2) A figure put before a chemical formula to show how many times the formula is to be multiplied. **C. of absorption**, the number indicating the amount of a gas that will be absorbed by a unit volume of a liquid at 0° C. and a pressure of 760 mm. **C's of digestibility**, numerals showing the relation between the quantities of the constituents of food eaten and those of the corresponding constituents in the feces. **C. of expansion**, the number indicating the amount of increase in the volume of a fluid or the size of a solid due to a rise of 1° in temperature.

coen'zyme. An enzyme that when combined with an inactive ferment or enzyme helps to activate it.

cognac *kōn-yak*. A variety of French brandy, called after the town in which it was first made.

cogni'tion (Lat. *cognoscere*=to know). The act of understanding that which is perceived. Recognition.

cohe'sion (Lat. *cohære*=to stick together). The force which holds the particles of a compound together.

coil. To wind. **Induction c.**, an apparatus for producing electric currents of very high electro-motive force. **Seiter's c.**, an apparatus consisting of thin metal tubes which can be fitted round various parts of the body and through which either hot or cold water can be passed.

coitus *kō-il'-us* (Lat. *coitio*=

joining together). Sexual intercourse.

colalgia *ko-lal'-jia*. Pain in the colon.

cola'tion. (Lat. *colare*=to strain). To strain or filter.

co'lature. A clarified liquid.

colchicum *kol'-chik-um*. A drug obtained from the dried seeds and bulb of the *C. autumnale*, a European and Asiatic plant. Small doses stimulate the gastric intestinal, and biliary secretion; large doses produce excessive local irritation, vomiting and purging. *C.* sometimes lessens the pain and joint symptoms in gout and chronic rheumatism; how it does so is not known. Dosage: Extract of the root, $\frac{1}{2}$ -2 grains; fluid-extract of the root, 2-8 minims; fluid-extract of the seeds, 3-10 minims; tincture of the root, 5-20 minims. Wine of the seeds, 20-60 minims. **Colchicin**—an alkaloid— $\frac{1}{120}$ - $\frac{1}{30}$ grain.

cold. (1) Lack of warmth. (2) A catarrhal congestion of the respiratory tract. The predisposing causes of such colds are exposure to cold and wet, the active cause; it is thought, is usually a microorganism though no special germ has as yet been isolated. See *Coryza*.

colec'tomy. Excision of a portion of the colon.

coleet'omy. Surgical incision of the vagina.

col'ic (Gr. *kōlikos*=suffering in the intestine). A painful spasm of the intestine or other of the mucous canals. **Biliary or hepatic colic**, that due to occlusion of a bile duct by a gall-stone. **Intestinal c.**, pain in the intestine, due as a rule to irritation by gas or

undigested food. **Menstrual c.**, abdominal pain, due to some uterine disorder which causes pain during menstruation. **Pancreatic c.**, colic due to obstruction of the pancreatic duct.

colit'is. Inflammation of the colon.

collagen kol'-a-jen. A nitrogenous substance that forms one of the constituents of connective tissue, especially of the bones, and is changed by boiling into glue or gelatin.

collapse' (Lat. *collabi*=to fall together). (1) Extreme prostration of the vital powers. The term is used more especially when the prostration develops suddenly in the course of a disease. (2) The falling together of the walls of an organ.

col'lar-bone. The clavicle.

collar'gol kol-lar'-gol. A form of soluble metallic silver used in the treatment of gonorrhea and septic conditions. Dosage: Administered intravenously, 30 minims of a 5 per cent solution are given well diluted; given by rectum, about 5 grains in 1-2 ounces of water; by mouth, 1-2 grains.

collat'eral (Lat. *con*=together and *latus*=side). (1) Auxiliary, aiding, accessory. (2) One of the side branches of the axons of nerve-cells. Collaterals are situated chiefly in the nerve centers, *i. e.*, the brain, spinal cord and sympathetic ganglia.

Colles fracture. See Fracture.

col'liden (Gr. *kolla*=glue and *eidos*=appearance). (1) An oily ptomain substance produced in decaying vegetable matter. (2) An oil procured by distillation of quinine and of various coal-tar products.

colliqua'tion (Lat. *con*=together and *lique*=to melt). (1) The act of melting. (2) The liquefaction of the tissues. (3) The production of an excessive fluid discharge.

collo'dion (Gr. *kolla*=glue and *eidos*=form, appearance). A colorless, very inflammable liquid made by dissolving gun-cotton in ether and alcohol. It is used to form a protective covering over abrasions in the skin. When applied to the skin it dries rapidly—the ether and alcohol evaporating—leaving a thin transparent film, that is insoluble in water, over the part. **Cantharidal c.**, collodion containing a solution of cantharides. It is used as a vesicant. The skin is shaved and washed as when using cantharides, the space to be covered with the collodion is outlined with oil to prevent the former spreading and from two to five coats of the collodion are applied, each application being allowed to dry before another one is made. The treatment of the resulting blister is the same as when it is caused by a plaster.

col'loid (Gr. *kolla*=glue and *eidos*=appearance). (1) Gluc-like. (2) A term applied to non-crystalline substances that are incapable of passing through a wet membrane.

colloid'al. Glue-like. Of the nature of a colloid.

collo'ma. A carcinoma in which the degenerated tissue is of a colloidal nature.

collyr'ium (Gr. *kollyrion*=an eye-salve). A lotion or an ointment for the eyes.

colocly'sis (Gr. *kolon*=a part of the body—the colon, and

clyster—an enema). An injection into the colon.

col'ocynth. A drug obtained from the bitter cucumber of Eastern countries. The active principal is colocynthin. Colocynth is a hydragogue and drastic cathartic. It is very irritating and is therefore generally used in combination with other drugs. Dosage: Extract $\frac{1}{2}$ –2 grains. Colocynthin, $\frac{1}{20}$ – $\frac{1}{5}$ grain.

coloenteritis. Inflammation of the colon and small intestine.

co'lon. The part of the large intestine extending from the cecum to the rectum. **Ascending c.**, that part of the colon extending from the cecum upward, on the right side of the body. **Descending c.**, the part of the colon on the left side of the abdomen, it terminates in the *sigmoid flexure*. **Transverse c.**, the portion of the colon extending across the upper part of the abdomen connecting the ascending and descending portions.

colon'ascope. A speculum used when examining the lower part of the intestine.

col'ony. A collection of bacteria in a culture medium.

col'or. The tint or hue of a body or of light. **C. blindness**, an inability to distinguish color; as a rule the disability is confined to one or two colors. The cause of the trouble is not known. One theory is that different parts of the retina respond to different color sensations and that inability to perceive a color is due to lack of development of the part of the retina that should respond to that color. **Complementary c's**, any two colors of light which on fusion

produce white; *e. g.*, red and greenish blue; orange and Prussian blue; yellow and ultramarine; or green, yellow and purple. **Fundamental c's**, those colors whose combinations in different proportions will give white or any of the intermediate color shades of the solar spectrum. According to some authorities red, green, and blue or violet are the fundamental colors; according to others, red, yellow, green, and blue. **C. index**, see Index. **Origin of c.**, all space is filled with a medium, named *ether* that is so rare and subtle that it cannot be perceived by our senses. Vibratory disturbances of an electromagnetic nature are caused in this ether by the heat of the sun, some of which take the form of waves that occur transversely to the line of their propagation and are of such lengths that they affect the eye, causing the sensation of light. The color of light depends upon the exact length of these light waves, *e. g.*:

| | |
|---|------------|
| The wave length of red light is..... | .0007 mm. |
| The wave length of orange light is..... | .0006 mm. |
| The wave length of yellow light is..... | .00058 mm. |
| The wave length of green light is..... | .00053 mm. |
| The wave length of blue light is..... | .00047 mm. |
| The wave length of violet light is.... | .0004 mm. |

Waves much longer than the red waves manifest themselves as heat and those much shorter than the violet, are the so-called *actinic rays* to which the chemical action of sunlight is due. Sunlight contains waves of all lengths but the colors when fused, extinguish each other and so it appears white. The different

length waves, however, have different indices of refraction and so suffer unequal bending (sec Refraction) on passing into a second medium, such as a prism or raindrops, the longer waves, *i. e.*, red entering first and the shortest—violet—last. In consequence, the colors are separated as, for instance, in the rainbow. There are three different modifications of light which influence our sensations of color; viz., brightness, which depends upon the energy of the ether vibrations; tone, which depends upon the wave length; and saturation which depends upon the purity of a given wave length, or in other words upon the amount of white light present. The human eye can distinguish all of these properties. It has been estimated that in the visible spectrum 165 different color tones can be distinguished and that there are 660 different degrees of intensity perceptible to the human eye, and as each tone can vary in intensity and each tone and intensity can have all possible degrees of saturation, the number of possible colors is enormous. The color of bodies depends upon the color or colors which they reflect; *e. g.*, a red body is red because it reflects red light and absorbs the light of other colors; a substance that neither reflects nor absorbs light will be black.

C. vision, the perception of color. In order that color can be perceived by the brain it is necessary that the retina be stimulated in some special manner by the color rays entering the eye. How it is stimulated is not known, but it is thought that there is in the retina some compound chemi-

cal substance which is acted upon by the incoming color rays so as to produce chemical changes that result in nerve impulses which give rise to the color sensations that constitute our perception of color.

colorectos'tomy (Colon and rectum, and Gr. *stoma*=mouth). An operation for the formation of a new opening between the colon and rectum.

colorim'eter. An instrument used for determining the amount of coloring matter in the blood in order to determine the per cent. of hemoglobin. See Hemoglobin.

colost'omy. An operation for the formation of a fistula into the colon. An artificial anus.

colost'rum. The fluid secreted by the mammary glands during pregnancy and until about three days after labor when the true milk is formed. It differs from milk chiefly in being more dilute and containing less casein, but more albumin and numerous fat cells known as *colostrum corpuscles*.

colot'omy. Surgical incision into the colon.

colpeury'n'ter. A dilatable bag used to stretch the vagina. The bag is introduced while in a flaccid condition and then inflated by the injection of air or water.

colpeu'rysis. Dilation of the vagina by means of a colpeurynter.

col'poscope (Gr. *kolpōs*=the vagina and *skopeo*=to observe). An instrument used in examination of the vagina.

col'umn. A pillar-like structure.

co'ma (Gr. *koma*=deep sleep). Unconsciousness, from which the individual cannot be a-

roused by external stimuli, occurring in the course of disease or following injury.

com'atose. In a state of coma.

combust'ion. Burning. See Oxidation.

com'edo pl. comedones. A thread-like plug of sebaceous matter obstructing a sebaceous gland, commonly known as a *blackhead*. Debility, anemia, gastro-intestinal disorders and lack of cleanliness are common causes.

com'es pl. comites. (Lat. *companion*). The name is applied to blood-vessels which lie near together, following the same course, or to vessels accompanying a nerve-trunk.

com'minuted (Lat. *com*=together and *minuere*=to make smaller). Broken into small pieces. **C. fracture**, a fracture in which part of the bone is crushed or broken in several pieces.

commis'sure (Lat. *a joining together*). A joining or seam. The point of junction of any two parts.

commu'nicans (Lat. *communicare*=to share). Communicating—the word is used in connection with certain arteries and nerves that communicate.

commu'nicate. To share a part of the burden. To impart to others.

commu'nis (Lat. *common*). (1) Belonging to several. (2) Not rare.

com'mutator. An appliance for reversing electric currents.

com'pact. Dense, consolidated.

compat'ible (Lat. *com*=together and *pelo*=to go to). Consistent with. In harmony with. Medicines that act well in combination are said to be compatible.

compensa'tion (Lat. *compensare*=to weigh together). To provide an equivalent. To counteract the result of some defect in the structure or function of an organ. **Cardiac c.**, cardiac tissue being elastic, the heart has the power of dilating to some extent, and this it does whenever it is forced to do extra work, as during severe physical exertion or disease. When made to do extra work constantly the dilation becomes permanent and the heart also becomes hypertrophied. It is then said to be *compensated*, as this condition enables it to do its work. **Failure of c.**, a compensated heart is unable to dilate as much as a normal heart when extra strain is thrown upon it, therefore, under such condition death or very serious results may follow; there is then said to be a *failure or break of compensation*.

com'plement. The name was given by Prof. Ehrlich to a substance, the nature of which is as yet unknown, that exists in many sera and in cell protoplasm and forms a part of the matter that is the active agent in the dissolution of toxins, etc., that gain entrance to, or are formed in, the body.

complemen'tal (Lat. *complere*=to fill up). Supplying a deficiency, completing. **C. air**, air about 100 cubic inches (1660 c. cm.) more than the tidal air, which can be taken into the lungs with a deep inspiration.

com'plex (Lat. *complexus*=woven together). Complicated. Not simple.

com'plicated. Complex. Involved. Associated with other diseases or injuries.

complica'tion. The act of rendering involved. A disease or abnormal condition that develops in the course of another illness.

com'pound. Made up of more than one part or substance. **C. fracture,** a fracture in which the soft tissues above the seat of fracture are so lacerated that the broken part of the bone is exposed to the outer air.

com'press. A folded cloth.

compress'. To make pressure.

compres'sion. The act of making pressure.

concave'. Having a depressed or hollow surface. **C. lens,** see Lens.

concav'ity. A hollow space. A depression.

con'centrate. (1) To bring to a common point or focus. (2) To mass together. (3) To condense and thus make stronger. (4) To fix the attention.

concen'tric. Having a common center.

concep'tion. (1) The impregnation of the ovum of the female by the spermatozoon of the male, whence results a new being. (2) An idea, purpose, etc., that is thought of. (3) The image of a thing in the mind.

concha kong'-kah (Lat. *a shell-fish, a cockle*). (1) A shell. (2) The hollow of the external ear. **C. nasalis,** a turbinated bone.

con'chatome. An instrument used for removal of a turbinated bone.

concoc'tion. (1) A mixture. (2) The act of digesting.

concom'itant. (Lat. *con*=with and *comes*=a companion). Accompanying.

con'crement. A deposit of inorganic matter, as lime, in a tissue.

conces'cence (Lat. *con*=with, together and *crescere*=to grow). To grow together.

con'crete (Lat. *con*=with, together and *crescere*=to grow). To coalesce into a mass. Condensed, solidified.

concre'tion (Lat. *concretio*=a uniting). (1) Abnormal union of organs or adjacent tissues. (2) A deposit of hardened matter, as a calculus.

concus'sion (Lat. *concutere*=to shake violently). A violent shaking, blow, or jar, also the resulting condition. **C. of the brain,** a loss of consciousness, weakened pulse and general debility brought about by injury to the head.

condense' (Lat. *condensus*=close together). To make more compact or concentrated; *e. g.*, steam condenses when it becomes water.

condens'er. (1) An apparatus for condensing gases or vapors. (2) A lens that will gather, and concentrate, rays collected on a mirror and direct them upon some special object.

con'diment (Lat. *condire*=to pickle). A seasoning or sauce used to improve the flavor of food. Condiments stimulate the appetite and also, when used in moderation, aid digestion in much the same manner as bitters. (See Bitters.) When used in excess, or when there is any tendency to gastritis, they may do harm by irritating the membrane lining the stomach.

conduc'tion (Lat. *conductus*=a guide). (1) The act of conveying or leading. (2) The transmission of heat from one body or from one part of a

body to another without perceptible motion of matter.

(3) The passing of sound waves through the air or other medium. (4) The passing of nerve impulses. (5) The conduction of electric currents. The conduction of heat, sound, etc., is due to the molecular motion that is constantly taking place even in solid bodies; the transference of heat, for instance, is simply the transference of molecular motion from vibrating molecules to those vibrating with less intensity. (See Heat.)

Bone c., the transfer of sound to the center of hearing in the brain through bones of the skull, instead of through the ear.

conduc'tor. Any substance or medium through, or over, which, electricity, heat, sound, etc., can pass, readily; *e. g.*, air and gases are poor conductors of heat, the majority of solids are better conductors than liquids; and of solids, metals, especially silver and copper, are about the best conductors of heat. Copper, iron, carbon, dilute sulphuric acid, water are good conductors of electricity and, on the contrary, porcelain, hard rubber, glass, sealing wax, silk, air are such poor conductors that they are called *insulators* or *non-conductors*.

con'dyle (Gr. *kondylos* = a knuckle, a knob). A rounded prominence on the articular end of a bone.

condylo'ma. A wart-like growth near the anus or vulva.

cone. A solid figure with a broad base and tapering apex.

confec'tion. (1) A sweetmeat. (2) Medicinal substances incorporated in honey or sugar.

configura'tion. The shape of a body.

confine'ment. The period of parturition.

con'fluent. Running together. Blending into one.

congeal *kon-jēl'*. To freeze.

congen'ital (Lat. *con* = with, and *genitus* = born). Existing at, or before, birth; *e. g.*, a disease or bodily defect.

conges'tion. An excessive accumulation of blood in a part, **Functional or physiological c.**, the congestion that occurs normally in a part during the performance of its function. **Passive c.**, congestion due to obstruction to the flow of blood.

congius. Lat. for gallon.

conglu'tin. A protein of the nature of casein found in almonds and in seeds of some of the leguminous plants.

conglutina'tion. Abnormal adhesion. Gluing together.

Congo-red. A red pigment that is turned blue by acids.

con'ical. Cone-shaped.

conju'gal (Lat. *con* = with and *jugare* = to join). Pertaining to marriage.

conju'gate (Lat. *con* = with and *jugum* = a yoke). Joined together. Coupled. **C. foci of a lens**, if rays of light from a point upon one side of a lens pass through the lens and are brought together at a point upon the other side, the two points are called *conjugate foci*.

conjuga'tion. Reproduction that takes place as the result of the union of two organisms. It is the opposite of asexual reproduction which is characteristic of the majority of one-celled organisms, as the

ameba and bacteria, in which the parent cell divides into two new cells.

conjuncti'va. The delicate membrane covering the anterior surface of the eyeball and lining the eyelids.

conjunctivi'tis. Inflammation of the conjunctiva. **Catarrhal c.,** (1) a mild form due to irritation or cold. (2) A contagious, but not usually very severe form, also called *pink eye*. **Croupous c.,** that associated with the formation of a whitish-gray membrane. **Diphtheric c.,** a purulent variety due to infection by the bacillus of diphtheria, it is a highly contagious and very serious form of c. **Gonorrheal c.,** a very serious and infectious form of purulent c. due to infection by the gonococci. **Granular c.,** see Trachoma. **Purulent c.,** that associated with discharge of pus.

consanguin'ity (Lat. *con*=with and *sanguis*=blood). Blood relationship. Related by birth.

con'sciousness (Lat. *con*=together and *scire*=to know). The being aware of one's existence and surroundings.

conser'vancy. A commission or court that has jurisdiction over public health affairs or other matters of public interest as fisheries, game, forests, etc.

conserva'tion (Lat. *conservare*=to preserve). Preservation. **Law of c. of energy and matter,** matter and energy can be changed from one form into another, but they cannot be created or destroyed.

conserve'. A medicated sweetmeat, a confection.

consolida'tion. Becoming solid.

con'stant. Remaining the same.

constipa'tion (Lat. *constipatio*=a crowding together). Retention or imperfect evacuation of feces.

constitu'tion. The natural qualities of the body. The particular composition of a body.

constitu'tional. Affecting the entire body. Not localized.

constric'tion (Lat. *con*=together and *stringere*=to draw). A narrowing or drawing together. A stricture.

constric'tor. A muscle that causes constriction.

consum'ption (Lat. *consumptio*=a wasting). (1) The act of using or consuming. (2) A wasting or atrophy of body tissue. (3) A common name for *pulmonary tuberculosis*. **Galloping c.,** acute pulmonary tuberculosis in which the individual loses strength and flesh rapidly. See Tuberculosis.

consum'ptive. An individual who is afflicted with tuberculosis.

conta'gion (Lat. *contagio*=contact). (1) The contraction of a disease by contact with infected matter. (2) Anything abnormal or deleterious that is communicated from one person to another.

conta'gious. Communicable. **C. diseases,** the more readily communicable diseases, as measles, scarlet fever, smallpox, were, formerly, classed as contagious diseases, but as this classification was indefinite and misleading it is not now used as much as it was.

conta'gium. The source of infection. Infective matter or the organisms causing disease.

contig'uous (Lat. *con*=together and *tingere*=to touch). Adjoining, in close proximity.

con'tinence (Lat. *continere*=to hold together, to restrain). Self-restraint.

continu'ity (Lat. *continuaere*=to last). Connected; the quality or state of being continuous. **Solution of c.**, a break or laceration in parts or tissues that are usually continuous.

con'tour. The outline of a figure or body.

con'tract (Lat. *con*=together and *trahere*=to draw). (1) To draw together; to become shorter or smaller. (2) To acquire by contagion.

contractil'ity. Having the power to contract; *e. g.*, the property possessed by muscular tissue which allows of its contracting in response to nerve stimulus.

contrac'tion. A shortening. The state of being contracted. The act of contracting or shortening.

contrac'ture. Distortion of a part due to shortening of a muscle or muscles.

con'tra. Latin for against.

con'tra-indica'tion. A symptom, etc., which prohibits the use of a certain treatment, medicine, or the like.

control'. A standard by which to judge the correctness of an experiment or observations of a test.

contu'macy. Perverseness; stubbornness.

contuse'. To bruise.

contu'sion. A bruise or crushing of the tissues. Contusions are usually caused by blows from blunt instruments, falls or tight compression. They are characterized by swelling, tenderness, and a

discoloration due to the rupture of small blood-vessels and consequent escape of blood into the tissues.

convales'cence. The period of recovery from a disease.

convalla'ria maja'lis (Lat. *Lily of the Valley*). (1) The lily of the valley. (2) A drug obtained from the bulb and roots of the lily; the action of which is similar to digitalis. Dose of fluid-extract, 5-20 minims.

convallar'in. A glucoside of convallario used as a purgative. Dose, 2-4 grains.

convec'tion (Lat. *convehere*=to carry). The propagation of heat through gases or liquids by actual transmission of heated molecules; *e. g.*, the air or liquid around any source of heat on becoming heated expands and thus becomes less dense and heavy, consequently it rises above the colder, denser, heavier air or liquid, which is pressed down, but this, in turn becoming lighter, rises, and so on.

conver'gence (Lat. *con*=together and *vergere*=to incline). To approach; coming together; joining at a point. **C. lens**, a lens which tends to converge rays of light to a focus. See Lens.

con'vex. Curved outward, it is the opposite of concave. See Lens.

convex'ity. The quality of being convex.

convex'oconcave'. Convex on one surface and concave on the other.

convex'oconvex'. Convex on both surfaces.

convex'oplane. Convex on one surface and flat on the other.

con'volute (Lat. *convolutus* = rolled together). Coiled, twisted.

convolu'tions. Twists or folds in an organ; *e. g.*, the gyri of the brain.

convul'sant. Anything that causes convulsions.

convul'sion. An abnormal, violent, involuntary contraction of the muscles, occasioned by an involuntary discharge of motor impulses from nerve centers. The causes of the nerve impulses are various; *e. g.*, (1) irritation of sensory nerves by poisons; these may be either taken into or formed within the body. (2) Irritation of sensory nerves of the stomach or intestines by undigested food or by worms. **Central or spontaneous c.**, one due to lesion of a nerve center. **Clonic c.**, one in which the contractions are intermittent. **Epileptiform c's**, convulsions characterized by loss of consciousness and chiefly clonic contractions. The more common causes of epileptiform c's are: Idiopathic epilepsy; organic brain disease; such toxic substances in the blood as are developed in infectious fevers, uremia, and certain drugs as alcohol; reflex irritation such as is occasioned in children by indigestion, worms, adherent prepuce, etc.; cerebral anemia. **Hysteric c's**, these are a manifestation of hysteria and vary in nature; consciousness is only partially lost, if at all; the movements may be either clonic or tonic and, usually, the paroxysms are of long duration. **Tetanic c's**, those caused by impulses emanating chiefly from the spinal cord; there is not necessarily a loss of consciousness and the contractions are

mostly of a tonic nature. The more common causes are: toxic substances produced in the body by the tetanus bacilli, pressure on the cord or brain by fluid resulting from meningitis; strychnine poisoning. **Tonic c.**, more or less persistent contraction of a muscle or muscles. **Uremic c.**, one due to uremia.

coordination (Lat. *co* = *con* = with and *ordo* = order). Working in harmony, as muscles.

copaiba ko-pa'-bah. A drug obtained from various leguminous trees. Its chief uses are as an expectorant and urinary stimulant. Dosage: oil, 5-10 minims; mass, 5-45 grains; resin, 5-10 grains.

cop'per. A metal element. Chemical symbol Cu. Some of its salts are used medicinally, especially: **C. acetate**, a salt of copper and acetic acid, used externally and internally as an astringent, dose $\frac{1}{10}$ - $\frac{1}{4}$ grain. **C. arsenite**, a salt of c. and arsenic acid, a very poisonous salt used in minute doses as an astringent. Dose, $\frac{1}{200}$ - $\frac{1}{100}$ grain. **C. sulphate**, a salt of c. and sulphuric acid, called also *blue-stone* and *blue vitriol*. It is used externally as a caustic, styptic and astringent and internally as an astringent. Dose, $\frac{1}{8}$ -2 grains.

cop'peras. Green vitriol or ferrous sulphate. A salt of iron and sulphuric acid. Used as a tonic, astringent and deodorizer. Dose, 1-5 grains.

cord. Any structure of the nature of cord. See Spinal cord, Umbilical cord.

cord'ial. An aromatic alcoholic liqueur.

core. The deepest or innermost part of a substance.

corn (Lat. *cornu*=horn). A small mass of indurated skin produced by friction or pressure. **Soft c.**, a corn (such as occurs between the toes) that is kept soft by moisture.

cor'nea (Lat. *corneus*=horny). The thin transparent membrane that forms the anterior part of the external coat of the eyeball. It is continuous with the sclera and consists of exceedingly thin layers of transparent connective tissue held together by thin fibers. It contains numerous nerves and lymph-spaces but no blood-vessels.

corn'eal. Pertaining to the cornea.

corneitis *kor-ne-i'-tis*. Keratitis, inflammation of the cornea.

cor'nu (Lat. *corneus*=horny). Any hornlike structure or projection.

coro'na (Lat. *crown*). Any crown-like eminence.

coro'nal. Pertaining to a crown or to the top of the head.

cor'onary (Lat. *corona*=a crown). Resembling a crown. A term applied to nerves, vessels, etc., that encircle a part or organ. **C. arteries**, the arteries that encircle the heart and supply its substance with blood.

cor'oner. An official who holds inquests on those who have died suddenly or by violence.

cor'pora. Plural of *corpus*. Latin for bodies.

cor'poral. Pertaining to the body.

cor'pus. A body. The principal part of an organ. **C. arantii**, the small bodies or nodules in the center of the fibrous cords on the edge of the fibrous rings encircling the flaps of the semilunar valves of the heart. **C. callo-**

sum. The mass of white nerve tissue which joins the cerebral hemispheres. **C. luteum**, one of the small masses of yellowish connective tissue that form in the ovary in the place of an ovisac after the latter ruptures and discharges its ovum.

cor'puscle (Lat. *corpusculum*=little body). A cell or small mass or body. **Blood c's**, the red and white corpuscles and blood-plates of the blood. The red corpuscles or erythrocytes are flat, circular, biconcave disks. They consist of a colorless, transparent, extensible, spongy framework infiltrated in all parts by a red coloring matter, termed *hemoglobin*, which contains a small amount of iron. The red corpuscles have a nucleus only while they are in the bone marrow, where they are formed by cell division. The nucleus is discarded when they enter the circulation. Normally, in every cubic millimeter of human blood there are about 5,000,000 red corpuscles. Their function is to carry oxygen to the tissues. (See Hemoglobin.) The white corpuscles or leucocytes are almost spherical masses of protoplasm about $\frac{1}{2500}$ of an inch in diameter. There are, normally, about 7000 white c's, in each cubic millimeter of blood, *i. e.*, one to 500 of the red cells. White c's, have a nucleus and lead a comparatively independent existence; they move about by projecting their protoplasm at one point and then flowing into it. By virtue of this ameboid movement they can migrate through the walls of the blood-capillaries into the tissues and, also, surround solid substances such as bacteria, with which

they come in contact. (See Phagocytes.) Leucocytes serve to protect the body from infection; they aid in the absorption and distribution of fats, and in the clotting of blood. (See Coagulation.) Blood plates are exceedingly small, colorless corpuscles. Their origin and function are not known, but it is thought that they take an active part in the initiation of blood-coagulation. Colostrum c's, spherical, granular cells filled with fat, contained in colostrum. Krause's c., round end-bulbs or sensory nerve endings in the mucous membrane of the mouth, nose, eyes and genitals. Lymph c's, the corpuscles of the lymph, they are similar to the leucocytes. Mucous c's, cells resembling the leucocytes that occur in the saliva.

corpus'cular. Pertaining to, or resembling, corpuscles.

correla'tion. Interdependence. Reciprocally related.

Corrigan's Pulse. Known also as *water-hammer pulse*. A pulse characterized by a quick, powerful beat, which suddenly collapses or recedes. The pulsation may be distinctly visible in the carotids and bronchial arterics. It is diagnostic of aortic regurgitation during compensation.

corro'sion. The process or act of disintegrating or wearing away by degrees.

corro'sive. A substance which causes corrosion.

cor'rugated (Lat. *con*=together and *ruga*=a wrinkle). Wrinkled, furrowed.

cor'rugator. A muscle that causes wrinkles or furrows.

cor'tex (Lat. *bark*). The name is applied to the outer sub-

stance of certain organs, as the brain and kidneys.

Cor'ti. See under Organ.

cor'tical. Relating to or of the nature of a cortex.

coryza *kor-iī-zah* (Gr. *koroe*=the side of the head). A cold in the head; a catarrhal inflammation of the mucous membrane of the nose. The condition is sometimes due to irritation caused by dust, pollen of plants, irritating fumes, etc., and to the onset of germ diseases, especially measles, but the more common cause is congestion due to exposure to cold followed by bacterial infection. If the congestion can be relieved before the bacteria gain ground the cold may be aborted, but, usually, once the bacteria become active the condition will continue until the body has formed sufficient antidote to overcome the toxins produced by the bacteria. The common remedies used to abort the cold are medicines or other agents, as hot baths, that will dilate the superficial blood-vessels, and thus relieve the congestion, and antiseptic, astringent gargles and nasal sprays. **Chronic c.**, a condition in which there is a permanent thickening and congestion of the mucous membrane of the nose, attended with discharge. It frequently gives rise to disease of the nasal bones, of the ear, etc. Common causes are adenoids and frequent attacks of acute coryza.

cosmet'ic (Gr. *kosmeō*=to adorn, to decorate). Preparations used to preserve the softness and beauty of the skin, also, those used to procure artificial beauty.

cos'molin. A commercial name for vaseline.

cos'tal (Lat. *costa* = a rib). Pertaining to the ribs.

cos'tive. Constipated.

cot'ton. A soft material made from the fibrous portion of the fruit of the cotton plants. **Absorbent c.,** cotton that has been rendered absorbent by the removal of impurities and fatty matter.

cotyle'don (Gr. *kotylēdōn* = a cup-shaped hollow). (1) The first leaf developed in a plant. (2) One of the small subdivisions of the uterine surface of a placenta.

cot'yloid. (1) Cup-shaped. (2) Pertaining to the cotyloid cavity; *i. e.*, the acetabulum.

cough. A sudden expulsion of air from the lungs. A cough may be due to effort to clear the air passages of foreign matter; to local irritation of the pharynx, larynx, bronchi or lungs; to reflex irritation as from pressure on the laryngeal nerve by a tumor or aneurism or from disease of an abdominal organ.

counterir'ritant (Lat. *contra* = against and irritant). A substance that, when applied to any area of the body, will produce irritation of the sensory nerve-endings lying beneath the surface to which it is applied, and, by this irritation, cause an increased amount of blood to flow to that part, thereby relieving congestion in other parts of the body.

counterirrita'tion. Irritation used to lessen congestion due to some other irritation.

courses. See Menses.

court-plaster. A plaster made by spreading isinglass on silk,

used as a protective dressing over small cuts and abrasions of the skin.

couveuse *koo-vu(r)z'*. An incubator.

co'ver-glass. A small, thin glass plate used to cover material examined with the microscope.

cow'-pox. The disease produced in cattle by inoculation with small-pox virus. It is marked by a pustular eruption on the teats and udders.

crab-louse. The *pediculis pubis*, a minute, gray, translucent louse that sometimes infects parts of the body covered with short hair, as the pubes, axillæ, etc.

cramp. A painful spasmodic affection of a muscle or muscles. **Professional c.,** cramp occurring in a muscle or group of muscles as the result of their excessive use. The occupations in which it is most apt to occur are writing, piano, or violin playing, sewing, and telegraphy, and the condition is usually named from the cause; *e. g.*, *writers' cramp*, *seamstresses' cramp*, etc. The treatment usually consists in resting the affected muscle, massage, and attention to the general health.

cra'nial (Gr. *kranion* = the skull). Pertaining to the cranium.

craniol'ogy (Gr. *kranion* = the skull and *logos* = a discourse). The scientific study of skulls.

craniom'etry (Gr. *kranion* = the skull and *metron* = a measure). The scientific study of the proportions of the head.

cra'nioscopy (Gr. *kranion* = the skull and *skopeō* = to view). Examination of the head for diagnostic purposes.

cra'niotome. An instrument used when performing craniotomy.

craniot'omy (Gr. *kranion*=the skull and *temnere*=to cut). The opening or cutting of the fetal skull in order to effect delivery. This operation is never performed now unless the fetus is already dead or it is impossible to perform Cæsarian section.

cran'ium (Gr. *kranion*=the skull). The bony case containing the brain. It is composed of 8 bones; viz.: 1 frontal, 2 temporal, 2 parietal, 1 occipetal, 1 sphenoid, 1 ethmoid.

cream of tartar. Potassium bitartrate. A salt procured from the crude tartar or argol that is deposited upon the sides of casks in which grape juice is fermented for the making of wines. It is used as a hydragog cathartic and a diuretic. Dose, 20 grains to 1 ounce.

cre'atin. The most abundant nitrogenous extractive in muscle. (See Extractives.) It may constitute 0.3 per cent of the weight of the muscle. It is thought that it is given off to the blood and excreted in urine in the form of creatinin. Creatin does not appear in the urine except under conditions which involve a very rapid destruction of the organized body proteins; *e. g.*, in fevers and starvation.

creat'inin. A nitrogenous extractive found in the urine, that is considered to be a product of tissue metabolism. Some authorities consider that it is derived from creatin by the loss of a molecule of water. Creatinin is found in the urine in amounts equal to 1-2 gms. per day and the quantity is increased under circum-

stances that increase tissue waste; *e. g.*, severe physical exercise, fever, starvation.

crema'tion. The burning of dead bodies or waste matter as garbage.

cre'matory. A furnace used for cremating.

cre'olin. (Gr. *kreas*=flesh and Lat. *oleum*=oil). A coal-tar product used as a disinfectant and deodorant. It is used in solutions of $\frac{1}{2}$ -2 per cent. It has about the same germicidal power as carbolic. In preparing creolin solutions the water should be put into the bottle first, it should not exceed 100° F., if it does the creolin will be so thoroughly dissolved that its strength will be impaired.

cre'osote. An oily, colorless liquid derived from the distillation of wood-tar. It is used, externally, as a local anesthetic, escharotic and antiseptic; internally, as an antiseptic, expectorant, and to prevent vomiting. In the treatment of tuberculosis, creosote is sometimes given by inhalation, the drug being sprinkled on a cone or mask, which is placed over the mouth. When administered by mouth it is best given in capsules or in the form of an emulsion. Dosage: $\frac{1}{2}$ -2 minims; *c.* water-strength 1 per cent.—1-2 drams; *c.* carbonate or creosotal, 5-20 minims.

crepitus. A crackling sound.

cre'sols. A class of coal-tar derivations used as disinfectants. The best known are tricresol, lysol, and creolin.

crest. A projecting ridge, especially one running along the surface of a bone near its summit or border.

cre'ta (Lat. *chalk*). Chalk. See Calcium carbonate.

cre'tin. An individual afflicted with cretinism.

cre'tinism. A condition that develops in children in whom the thyroid gland has not developed or has been destroyed as the result of disease. The condition is characterized by a lack of physical and mental development. It can be improved by feeding the patient with thyroid extract. The treatment must be continued for life.

crib'riform (Lat. *cribrum* = a sieve). Perforated with numerous small holes, like a sieve.

cri'coid (Gr. *krikos* = a ring and *eidos* = form). Ring-shaped. **C. cartilage**, the ring-shaped cartilage of the larynx, to the front portion of which the vocal cords are attached.

crim'inal malpractice. The production of abortion when not necessary for therapeutic reasons.

criminol'ogy. The scientific study of crime and criminals.

cri'sis (Gr. *krisis* = a separating). (1) The height or turning point of a disease. (2) When a temperature that has been continuously high for some time drops to about normal in a few hours and is attended with other signs of improvement, the temperature is said to *fall by crisis*. (3) A sudden sharp paroxysm of pain, especially such as occurs in the course of *tabes dorsalis*.

cris'ta. Latin for crest.

crit'ical. Hazardous. Important. Of the nature of a crisis.

cross-birth. A popular term for a presentation in which

the fetus lies transversely within the uterus, thus rendering version necessary.

crotch'et. A curved instrument that is used in delivering a fetus after craniotomy.

cro'ton oil. A fixed oil expressed from the seeds of *Croton tiglium*, a shrub of Asia. When applied externally, the oil produces counterirritation and vesication; taken internally, it acts as a drastic cathartic. On account of its irritating property, it should be administered in an oily diluent, as butter or glycerin. Dose, 1-2 drops.

croup (A. S. *kropan* = to cry out).

Catarrhal c., a disease characterized by spasm of the vocal cords, suffocative breathing, dyspnea and a ringing metallic cough. It is usually excited by catarrh of the larynx. The paroxysms, as a rule, occur at night. **Diphtheretic c.**, a croupous condition associated with diphtheria. The condition is very serious for the toxemia in such cases is severe and death is likely to result from that or from suffocation. **False c.**, catarrhal and spasmodic c. are often so called to distinguish them from membranous croup. **Membranous c.**, same as diphtheretic c. **Pseudo membranous c.**, croup associated with a membrane in the throat but the membrane is caused by other germs than the bacillus diphtheriæ. **Spasmodic c.**, known also as laryngismus stridulus, a neurotic disease of childhood, the paroxysms resemble those of catarrhal c. but the catarrhal symptoms are absent. **True c.**, same as membranous c.

croup'ous. Resembling croup.

croup'y. Similar to croup.

crown. The exposed part of a tooth.

cru'cial (Lat. *crux*=a cross). (1) shaped like a cross. (2) Decisive. Severe.

cru'cible (Lat. *crucibolus*=a melting pot). (1) A vessel that will withstand great heat which is used to contain substances that are not easily melted during the melting process. (2) A severe test.

crude. Raw. Undiluted. Unrefined.

cru'ra (Lat. pl. of *crus*=a leg). Legs. Pillars, supports, connecting links.

crus. A leg or a process resembling a leg.

crust. The outer layer. A scale of dried exudate formed over a sore.

crypt (Gr. *krypto*=to hide). A small follicle or simple gland.

crys'talline. Clear, transparent, resembling a crystal. **C. lens,** a biconvex, transparent fibrous substance situated between the aqueous and vitreous humors of the eye and dividing the anterior from the posterior chambers. It is enclosed in a thin transparent membrane—the capsule—and is supported in place by the counter balancing pressure of the two humors and by the suspensory ligament which is fused to the anterior surface of the capsule and, at either side, to the ciliary processes between the choroid and the iris. The c. lens forms part of the refractory apparatus of the eye.

crystallit'is. Inflammation of the crystalline lens of the eye.

crystalliza'tion. The formation of crystals.

crys'tals. Angular solids of de-

finite geometric form, produced by the action of natural forces.

crys'tallose. A crystalline salt of sodium and saccharin that is used as a substitute for sugar by persons troubled with diabetes, obesity, or other conditions which render the use of sugar inadvisable. Crystalline is about 400 times sweeter than sugar.

cu. The chemical symbol of copper.

cube. A solid square.

cu'bebs. A drug obtained from the dried unripe fruit of the *Piper cubeba*, a plant of Java. It is used as a diuretic, a vesical stimulant and an expectorant. Dosage: Fluid-extract, 10–60 minims; oil, 5–10 minims; oleoresin, 5–20 minims; tincture, 1–2 drams.

cu'bic (Gr. *kubos*=a cube). Shaped like a cube. Pertaining to a cube.

cu'bital (Gr. *kubiton*=the elbow). Pertaining to the ulna—the inner bone of the forearm or to the forearm.

cu'bitus. The forearm.

cu'boid (Gr. *kubos*=a cube and *eidos*=form). (1) Of the form of a cube. (2) One of the tarsus bones.

cul'-de-sac. A narrow cavity or vessel open only at one end.

cu'lex (Lat. *gnat*). A genus of two-winged insects including gnats and mosquitoes.

culicifuge *ku-lis'-if-uj* (Lat. *culex*=a gnat and *fugere*=to drive away). Any preparation used to drive away mosquitoes.

cul'ture. (1) The growing of microorganisms in prepared media. (2) A medium in which microorganisms are grown. **Agar c.,** a liquid culture solidified with agar instead of

gelatin. **Bouillon c.**, a bouillon preparation used as a culture medium; for method of making see Bouillon. **Gelatin c.**, a liquid culture solidified with gelatin. **C. medium** (pl. media), any preparation in which microorganisms are grown. **Negative c.**, a culture in which germs have been planted, but have not developed. **Plate c.**, one that is spread over a flat surface. **Pure c.**, a culture of a single species of microorganisms. **Slant c.**, one made on a slanting surface. **Smear c.**, one in which the inoculating medium is smeared over the surface of a solid medium. **Stab or stick c.**, one in which the inoculating matter is injected deeply into a solid medium with a platinum wire or other sharp implement.

cu'mulate (Lat. *cumulus* = a heap). To accumulate, to heap up.

cu'mulative. Certain drugs are said to have a cumulative action, because after they have been taken for some time they are likely to give rise suddenly to well-marked symptoms of an overdose. There are various causes for this; e. g. (1) Certain drugs, digitalis, for instance, after a while stop their own elimination by constricting the renal vessels and thus interfering with the normal secretion and excretion of urine. (2) Drugs that are not very soluble are not absorbed from the intestine easily and may accumulate there, and if conditions occur which are favorable to their absorption, a large amount may be absorbed within a short time.

cune'iform (Lat. *cuneus* = wedge and *forma* = form). Wedge-

shaped. **C. bone**, one of the wedge-shaped bones of the ankles or wrists; there are three in each of the ankles and one in each of the wrists.

cup. (1) A cup-shaped structure, or cavity. (2) A glass used for cupping. **Biers c.**, a cupping glass provided with a rubber bulb, syringe, or pump for the expulsion of air from the cup. Called after a surgeon in Berlin who first advocated their use in connection with infected wounds.

cup'ping. The application to some part of the body of glasses from which the air has been expelled either by extraction with a syringe or pump or by expansion, as the result of the application of heat. The tissues under the cup are drawn up under the latter to fill the partial vacuum thus formed and this causes congestion of the blood in these tissues and relieves that in adjacent parts. **Wet c.**, that done over incisions.

cura're. A poisonous vegetable extract that causes death by paralyzing the motor nerves. It was used as an arrow poison in South America. It is sometimes used in small doses in the treatment of tetanus. Dose, $\frac{1}{32}$ – $\frac{1}{8}$ grain.

curd. The coagulum of milk. Milk is usually curdled by the addition of acid or rennet to milk and the curd consists mainly of the casein.

curet' or curette. A scoop-shaped instrument used to scrape abnormal matter from the walls of cavities or other surfaces.

curet'age or curettage or curetment. The scraping of a surface with a curet.

cur'rent. A flow or passage of liquid, gas, electricity or nerve impulse. **Alternating c.**, an electric current that is alternately direct and the reverse. **Constant or continuous c.**, an uninterrupted galvanic current. **Direct c.**, a current that is passing constantly in one direction. **Faradic c.**, an alternating current of induced electricity. **Galvanic c.**, one generated in an electric battery by chemical action such as is produced when a zinc and a carbon plate, connected, but not brought into contact, by a wire, are partly immersed in dilute sulphuric acid. The current passes from the zinc, through the fluid, to the carbon plate. **Induced c.**, that produced by proximity to another current. **Interrupted c.**, one that is frequently opened and closed. **Reversed c.**, one in which the current is made to reverse its direction. **Secondary c.**, an induced current. **Stabile c.**, a current applied to the body with both electrodes kept stationary.

curri'culum. The course of study in a school or college.

cur'vature of the spine. An abnormal bending of the spinal column. If a curve is lateral—*i. e.*, toward one side—it is called *scolios*, if dorsal, *kyphosis*—*humpback*, and if ventral—*i. e.*, forward—*lordosis*.

cusp (Lat. *cuspis*=a point). A pointed projection such as the pointed portion of the crown of a tooth or the pointed segment of a valve.

cuta'neous (Lat. *cutis*=the skin). Pertaining to the skin.

cu'ticle (Lat. *cuticula*, dimin. of *cutis*=skin). The outer or scarf skin.

cu'tis. The true skin or derma.

cy'anosed. Of a blue color. See Cyanosis.

cyano'sis (Gr. *kyanosis*=a blue color). A blue color of the skin due to imperfect oxygenation of the blood, or, if local, to insufficient or feeble circulation in the affected part. The condition may be caused by any interference with the circulation, with the respiration, or with the aëration of the blood in the lungs.

cyano'tic. Cyanosed.

cy'cle (Gr. *kylos*=a circle). (1) A circle. (2) A consecutive sequence of events or symptoms. **Cardiac c.**, the systole or contraction and diastole or relaxation of the heart. Each cycle corresponds to one pulsation or beat of the heart.

cy'clie. Occurring in cycles.

cyl'inder. A round column-shaped body.

cylin'drical. Shaped like a cylinder.

cyst. A membranous sac containing fluid, or semi-solid substance. **Adventitious c.**, one formed around a foreign substance. **Dermoid c.**, a cyst thought to be an error in body development in consequence of which a piece of skin or mucous membrane becomes isolated in the tissues and develops into a sac in which sweat, sebaceous matter, hair, etc., collect. These cysts occur most frequently in the neck, near the rectum, and in the ovaries. Those found in the ovaries often contain teeth and pieces of bone. **Distention or retention c.**, one due to the blocking of a gland in consequence of which its secretion cannot be discharged and the gland becomes distended. **Follicular c.** a re-

tention c. of a follicle or small gland. **Hydatid** or **parasitic c.**, one due to infection by a species of tapeworm which infests the intestines of dogs. Infection takes place by the ingestion of eggs of the worm with food or drink. The eggs develop in the alimentary canal and the embryos find their way into the blood stream and are carried to the tissues, most frequently those of the liver. **Sebaceous c.**, the retention cyst of a sebaceous gland.

crystal'gia (Gr. (*kystis*=bladder and *algos*=pain). Pain in the bladder.

cys'tic. Relating to a cyst or to urinary bladder. Resembling a cyst.

cys'tin. A substance found in urine. **C. calculus**, a urinary calculus composed of cystin.

cystit'is (Gr. *kystis*=the bladder and *itis*=inflammation). Inflammation of the bladder. The condition is characterized by pain in the bladder, painful micturition, and turbid urine which may contain pus cells.

cys'toceles. Hernia of the urinary bladder.

cys'tolith (Gr. *kystis*=a bladder and *lithos*=a stone). A urinary calculus.

cysto'ma. A tumor containing cysts.

cys'toscope. An instrument for examining the interior of the bladder.

cystot'omy (Gr. *kystis*=a bladder and *temnere*=to cut). Surgical incision of the bladder.

cy'toblast (Gr. *kytos*=a hollow, a cell and *blastos*=a sprout, a germ). A cell nucleus.

cy'toplasm (Gr. *kytos*=a cell

and plasma from *plasso*=to mold, to form). See Proto-plasm or Cell.

D

Dacryagogue *dak'-re-gog* (Gr. *dakry*=tear and *agogos*=leading). Any substance that causes a flow of tears.

dacryocyst *dak'-re-o-sist* (Gr. *dakry*=tear and *kystos*=hollow vessel). The lachrymal or tear sac; *i. e.*, the upper enlarged part of the nasal duct through which the tears flow from the eyes into the nose.

dacryo'ma (Gr. *dakryo*=to weep). An obstruction of a lachrymal duct in consequence of which the secretion from the lachrymal gland, being unable to pass through the nasal duct into the nose, trickles, in the form of tears, over the cheek.

dactylion *dak-til'-e-on* (Gr. *daktylos*=a finger). Adhesion of fingers, whether congenital or as the result of injury or disease.

dan'druff. (1) A disease of the scalp characterized by the formation of small scales. Uncleanliness, excessive sweating, and general debility are predisposing causes. (2) The scales present in the disease.

dandy fever. See Dengue.

dat'urin. An alkaloid derived from the *Datura stramonium* or *Thorn apple*; a weed common in this country and Great Britain. See Stramonium.

deaf-mute. An individual who is both deaf and dumb.

deaf'ness. Inability to hear. **Cerebral or cortical d.**, deafness due to lesion of the center of hearing in the brain. **Hysterical d.**, temporary d., that due to hysteria and not asso-

ciated with any discoverable lesion of the auditory apparatus. **Labyrinthine d.**, that due to disease of the labyrinth of the inner ear. **Mind, psychic, sensory or word d.**, an inability to understand auditory sensations, due to some lesion of the part of the brain concerned with the memory of words and sounds. **Throat d.**, that due to the results of obstruction in the Eustachian tube.

dealcoholiza'tion. The removal of alcohol from a substance.

death. Cessation of life. **D. rattle**, a sound sometimes made by the dying, due to the passage of the air from the lungs through mucus that has collected in the bronchi and larynx. **D. rigor**, the stiffening of muscle that follows death as the result of the coagulation of the protein material of the tissue.

debil'ity (Lat. *debilitatus* = weak). Weakness, loss of strength.

decagram *dek'-ka-gram* (Gr. *deka* = ten). 10 grams.

decalcification *de-kal-se-fi-ka'-shun*. The removal or loss of lime from a substance.

decaliter *dek'-ka-lê-ter* (Gr. *deka* = ten). 10 liters.

decameter *dek'-ka-me-ter*. 10 meters.

decanta'tion (Lat. *de* = down and *canto* = side). The removal of clear liquid from a sediment by pouring the latter gently from one vessel into another.

decapita'tion (Lat. *de* = from and *caput* = head). Removal of the head.

decay' (Lat. *de* = down and *cadere* = to fall). Decomposition of dead organic matter.

decidua *de-sid'-u-ah* (Lat. *deciduus* = falling off). The mem-

branous structure produced in the mucous membrane of the uterus during gestation and thrown off after parturition. **D. menstrualis**, the congested mucous membrane of the uterus during menstruation; the name was used because it was formerly supposed that the uterine membrane was shed during each menstruation and a new one formed in the interval between the menses. **D. reflexa**, reflected d., the portion of the decidua which is reflected over, and surrounds, the impregnated ovum after it becomes attached to the uterine wall. It forms the outer covering of the amniotic sac. **D. serotina**, late d., the portion of the decidua which becomes the maternal part of the placenta. **D. vera**, true d., the portion of the decidua lining the uterine cavity.

decid'uous (Lat. *deciduus* = falling off). Not permanent. **D. teeth**, the first set of teeth.

decigram *des'-ig-ram*. One tenth part of a gram.

deciliter *des'-il-e-ter*. One tenth of a liter.

decimeter *des'-i-me-ter*. One tenth of a meter.

decline'. (1) The period in disease during which the temperature gradually falls until it reaches normal. Known also as the period of *defervescence*. (2) A wasting disease.

decoc'tion (Lat. *de* = down and *coquere* = to boil). A drug prepared by boiling the medicinal agent in water.

decolora'tion. The removal of color, bleaching.

decomposi'tion (Lat. *de* = from and *componere* = to put together). (1) Decay, putrefaction. (2) The breaking of

a compound body into its constituent parts or elements.

dec'rement. The defervescence or decline of a disease.

decrep'itate (Lat. *decrepitare*). To explode or burst with a crackling noise.

decubitus *dek-u'-bit-us* (Lat. *lying down*). (1) A recumbent position, lying down. (2) A bed-sore. **Dorsal d.**, lying on the back.

decussa'tion. A crossing or interlacing of separate parts; *e. g.*, (1) The decussation of the cerebro-spinal nerves in the medulla oblongata in consequence of which the right side of the body is controlled by the left side of the brain and vice versa. (2) The optic chiasma formed by the decussation of the fibers of the optic nerves coming from the nasal or inner side of each retina.

defeca'tion. The discharge of feces from the rectum.

defect'. An imperfection.

deferves'cence. The decline of a disease or fever.

deferves'cent. An agent that causes the reduction of fever.

defi'brinated blood. Blood from which fibrin has been removed. This is done by whipping or stirring blood as soon as it is shed. Blood so treated looks like normal blood, but it will not clot.

defibrina'tion. The removal of fibrin from blood, etc.

deformed. Disfigured.

deft'ly. Dexterously, aptly, neatly.

degenera'tion. To become poorer in quality, to deteriorate. **Amyloid d.**, degeneration of tissue associated with a deposit of starchy matter.

Calcareous d., that associated with the deposit of lime in the tissues. **Caseous** or **cheesy d.**, infiltration of tissue with a cheese-like substance. **Fatty d.**, infiltration of a tissue with fat cells. **Cystic d.**, that in which cysts form in the affected tissue. **Fibroid d.**, that in which the tissues become hardened and fibrous. **Gray d.**, degeneration of the white nerve tissue in which it assumes a gray color. **Hyaline d.**, that in which the affected tissues assume a shining appearance.

deglutition *de-glu-tish'-un* (Lat. *deglutis* = to swallow). The process of swallowing.

dehydra'tion (Lat. *de* = from, Gr. *hudor* = water and Eng. *ation*). The removal of water from a substance of which it is a constitutional part.

dejec'ta. Fecal matter.

dejec'tion. (1) Defecation. (2) Despondency.

delete'rious. Harmful, poisonous, hurtful.

deliques'cence. The property possessed by certain substances of absorbing moisture from the air. Liquefaction as the result of moisture absorbed from the air.

deliques'cent. A substance that will absorb moisture from the air.

delir'ious (Lat. *delirus* = crazy). Suffering from delirium.

delir'ium (Lat. *delirus* = crazy, foolish, from *delirare* = to go out of the way). Mental confusion and wandering due to some cerebral disturbance. The more common causes of delirium are: The toxins of disease; nervous exhaustion as the result of illness, overwork, and the like; depression

of the nervous system by drugs, shock, etc.; the effect of the continued use of such drugs as alcohol, cocain, morphin. **D. tremens**, delirium induced by the overuse of alcoholic drinks.

deliv'er. Setting free. Removal of a fetus, placenta and membranes.

del'phin. An alkaloid of the *delphinium staphisagria*. It is very poisonous. Its chief use is for external applications as a parasiticide.

del'ta (the Greek letter Δ). A triangular space.

del'toid. Shaped like the Greek letter Δ. **D. muscle**, the triangular muscle covering the most prominent part of the shoulder and the middle of the outside of the arm.

delu'sion (Lat. *deludere* = to deceive). A false idea about existing things, or conditions, which is tenaciously held by the individual in spite of proof to the contrary.

demen'ted. Insane, deprived of reason.

dementia *de-men'-she-ah*. Feebleness of intellect. Deterioration or loss of mental faculties. **Acute d.**, dementia occurring independently of any other form of insanity, frequently as the result of over-work, severe mental shock, or similar causes. It is often curable. **Chronic d.**, incurable dementia. **Epileptic d.**, feebleness of intellect as the result of epilepsy. **Paralytic d.**, paresis; paralysis of the insane. The condition is due to disease of the meninges and cortex of the brain. The individual first becomes mentally unbalanced and, later, paralyzed. **D. præcox**, called also *adolescent d.*, dementia occurring at

the time of adolescence or puberty. **Primary d.**, same as acute d. **Secondary d.**, that following other forms of insanity. **Senile d.**, feebleness of intellect due to old age.

demul'cent. (1) Bland, soothing. (2) A mucilaginous substance given to allay irritation as in diarrhea; examples are barley gruel, flaxseed tea, solution of gum arabic, iceland moss, slippery elm.

dena'tured. Made unnatural. **D. alcohol**, see Alcohol.

den'drites, dend'rones (Gr. *den-dron* = a tree). Nerve processes that, almost immediately upon emerging from a cell-body, divide and subdivide into a series of branched filaments that spread out like the branches of a tree. The function of the dendrites is to collect nerve impulses from the processes of other cells and carry them to their own cell-bodies.

dendrit'ic. Resembling the branches of a tree. Of the nature of, or pertaining to, dendrites.

dengue *deng'-u*. A febrile disease of unknown origin, common in tropical and subtropical countries. It is characterized by severe pain in the joints and muscles and a skin rash of variable character. It is known also as *three day fever* and *break-bone fever*.

deni'trifica'tion. The process by which nitrates are reduced, through nitric and nitrous oxides, to elementary nitrogen. The process is being carried on continuously, by certain species of bacteria, in decomposing nitrogenous organic matter and it consists essentially in the extraction of

oxygen from the nitrates produced in nitrogenous matter during the process of decomposition.

deni'trifier. A bacterium which induces denitrification. Many species of bacteria have this power.

den'sity (Lat. *densus*=thick). The amount of matter that a body or space contains in a given area. Density depends upon the degree of compactness with which the molecules of matter are held together and the degree of density can usually be more or less changed in various ways, but especially by heat and cold; heat, by expanding matter, makes it less compact or dense; cold, by contracting it, makes it more so.

den'tal (Lat. *dentalis*, from *dens*=a tooth, pl. *dentes*). Pertaining to the teeth. **D. pulp**, the substance filling the interior of teeth; it consists of connective tissue blood-vessels and nerves.

den'tine (Lat. *dens*=a tooth). The bone-like substance which constitutes the framework of teeth. The outer surface of the portion below the gums—the crown—is covered with enamel.

denti'tion. The cutting of the teeth.

denu'cleated. Deprived of the nucleus.

denu'date. To remove the covering.

deo'dorant. Any substance that destroys or hides bad odors. Deodorants frequently used are: Formalin, creolin, permanganate of potash.

deoxida'tion. Reduction; *i. e.*, the removal of oxygen from a compound.

depil'atory (Lat. *de*=from and *pilus*=hair). A substance that removes hair.

deplete' (Lat. *deplere*=to empty). To empty. To exhaust.

depos'it (Lat. *deponere*=to lay down). To leave. Sediment or dregs.

depres'sant. Anything that diminishes the force or strength of a body.

depres'sion. (1) An indenture or hollow. (2) A depletion or lessening of force. (3) Discouragement.

depres'sor. (1) Anything which depresses a part. (2) A nerve which, when stimulated, retards or lessens the activity of the part or organ it controls.

derange'ment. (1) Disorder. (2) Abnormal mental condition.

deriva'tion. The drawing or leading away of anything from its natural source. Counterirritation.

der'ma (Gr. the *skin*). The under layer of the skin, known also as, the *true skin* and the *corium*.

der'mal (Gr. *derma*=the skin). Pertaining to the skin.

dermatit'is. Inflammation of the skin.

derm'atoid. Skin-like.

der'matol. Bismuth subgallate. A yellow, insoluble antiseptic, astringent powder used, externally, in the dressing of wounds and, internally, in the treatment of diarrhea. Dose, 4-8 grains.

der'moid. Skin-like. **D. cyst** see Cyst.

des'iccant. A drying agent.

des'iccate. To dry.

desquama'tion (Lat. *desquamare*=to peel off). The shedding

of the cuticle in scales or shreds.

destruc'tive distilla'tion. See Distillation.

detergent de-ter'-jent (Lat. *detergere*=to wipe away). A cleansing agent.

devia'tion (Lat. *deviare*=to turn aside). A variation or diverging from the ordinary course.

dex'ter (Lat. *right*). Pertaining to or on the right-hand side.

dex'terous. Expert.

dex'trin ($C_6H_{10}O_5n$). A soluble carbohydrate into which starch is converted by heat, acids, and certain ferments, *e. g.*, diastase of malt and, within the body, the ptyalin of the saliva.

dex'trose ($C_6H_{12}O_6$) (Lat. *dexter*=right). Glucose or grape sugar. A simple sugar that, in combination with levulose, occurs in grapes and other sweet fruits. It is formed in plants from CO_2 and H_2O obtained from the air. It is formed in the animal body, under the influence of ferments, from starches and more complex sugars. It is made from starch, cane sugar and other disaccharids by boiling them in dilute acids. Dextrose was so called because it turns polarized light to the right.

diabetes di-a-be'-tēs. A disease characterized by the voiding of an excessive amount of urine. **D. insipidus**, an abnormal condition of unknown origin marked by (1) the habitual excretion of large quantities of dilute, but otherwise normal, urine, (2) thirst. These are usually the only symptoms. **D. mellitus**, a disease of metabolism, characterized by an inability of the system to further the oxidation of the amount of

glucose derived from the quantity of starch and sugar generally used in the diet and the consequent accumulation of glucose in the blood and its excretion in the urine. **Neurogenous d.**, diabetes caused by disease of the central nervous system. **Pancreatic d.**, that due to disease of the pancreas which interferes with the formation of its internal secretion. This secretion being essential to the process of oxidation of glucose in the tissues. This is thought to be the usual cause of diabetes mellitus.

diabe'tic. Relating to or affected with diabetes. **D.**

coma, coma caused by depression of the nervous system by the action of the toxic substances produced in the body as the result of diabetes. (See Auto-intoxication. **D. gangren**, gangrene resulting from diabetes.

diabe'tin. Levulose. So called because it is sometimes used instead of sugar in diabetes.

diachylon di-ak'-il-on (Gr. *diachylus*=very juicy). Lead plaster, made by boiling hydrated oxide of lead with olive oil. **D. ointment**, a mixture of d. plaster and olive oil.

diagno'sis (Gr. *dia*=between and *gnosis*=inquiry). A scientific determination of the nature of a disease by its symptoms.

diagnos'tic. Pertaining to diagnosis.

dial'ysis (Gr. a *loosening*). The separation of nondialyzable substances from a mixture by passing the latter through parchment or other porous membrane. This is the method used for the separation

of proteins from a mixture since their molecules, even when the proteins are in solution, are too large to pass through parchment.

di'alyzer. An apparatus used to effect dialysis.

diam'eter. The length of a line passing from one side of an object to the other, through its center.

diapede'sis. The passage of blood-corpuscles through the walls of unruptured blood-vessels.

diaphanoscope. *di - af - an' - o - skope.* An instrument used for illuminating a body cavity.

diaphoresis *di-a-for-e'-sis* (Gr. *dia*=through and *phoreo*=to carry). Excessive perspiration.

diaphoret'ic. Any agent that will stimulate perspiration.

diaphragm *di'-af-ram* (Gr. *diaphragma*=a partition). A partition. (1) A membrane stretched across the opening of a cavity. (2) The musculomembranous partition between the thoracic and abdominal cavities. It is one of the principal muscles of respiration.

diarrhea *di-ar-e'-ah* (Gr. *dia*=through and *rheo*=to flow). The passage of too frequent and too liquid stools. The more common causes are excessive irritation of the intestine by eating too much or too irritating food; congestion of the bowel wall as the result of disease of the heart or liver or of exposure to cold and wet; bacterial infections of the intestine; functional derangement of the biliary or gastro intestinal organs or of the pancreas; nervousness. **Cachectic d.,** that due to some chronic

constitutional disease. **Lienteric d.,** diarrhea in which the fecal discharges consist principally of watery fluid and undigested food. **Pancreatic d.,** that due to disease of the pancreas which interferes with the splitting up of fats, the lipase of the pancreatic juice being essential for the purpose. **Summer d.,** that occurring during hot weather; it is usually due to bacterial infection.

diarthro'sis (Gr. *diarthro*=to divide by joints). Freely movable joints. See Joints.

di'astase (Gr. a *separation*). (1) a nitrogenous substance produced during the malting of grain, and prepared from the pancreas of animals. It has the same effect upon starch as the ptyalin of the saliva and the amylase of the pancreatic juice; *i. e.*, it changes it to dextrin.

dias'ter. The double star formed during the process of karyokinesis cell division.

diastole *di-as'-to-le* (Gr. *dia*=apart and *stello*=to send). The period of rest or relaxation in the cardiac cycle. See Cycle.

diastol'ic. Pertaining to the diastole.

diathe'sis (Gr. *diatithēmi*=to place). A constitutional weakness or idiosyncrasy that predisposes an individual to some particular disease.

diatoma'ceous earth. Earth-rocks, etc., formed of fossils of the diatomaceæ; an order of minute flowerless plants that grow in dark, wet places.

diatom'ic. (1) A term applied to elements which are capable of combining with two atoms of a monatomic or univalent element; *e. g.*, oxygen a dia-

tomic or divalent element combines with two atoms of hydrogen a monatomic element thus H_2O .

dibasic. Containing two molecules of a base or two hydrogen atoms that can be replaced by a base.

dicrotic (Gr. *dis*=twice and *kroteo*=to strike). Having a double beat. The term is more especially used in connection with the pulse when some of the pulsations are, as it were, divided. The phenomenon is due to lack of tone of the wall of the aorta which prevents the artery contracting properly when the blood is forced into it from the heart.

diet. The food.

dietary. Pertaining to the diet.
A systematic plan of diet.

differential. Distinguishing.

diffuse' (Lat. *dis*=apart and *fundere*=to pour). Scattered.
To spread.

digestant. A medicine that aids digestion.

digestion (Lat. *dis*=apart and *gerere*=to carry). The process by which complex food material is changed into simple substances, that can be absorbed. **Artificial d.**, the digestion of food by the use of ferments, etc., outside the body. **Biliary d.**, the part taken in digestion by the bile, *i. e.*, it assists the lipase of the pancreatic juice in the splitting of fats into fatty acids and glycerin and in the saponification of the fatty acids. **Chemical d.**, the chemical changes that take place in food material in the course of digestion as the result of the influence of enzymes or ferments. **Gastric d.**, the part of digestion that takes place

in the stomach, which is, principally, the splitting of proteins into proteoses by the action of the pepsin + hydrochloric acid. **Intestinal d.**, that which is carried on in the intestine; viz., the splitting of proteoses into peptones, amino acids, etc., by the trypsin of the pancreatic juice and the erepsin of the intestinal juice; the conversion of starch and dextrin into maltose by the amylase of the pancreatic juice and the inversion of complex sugars into glucose by the inverting ferments of the intestinal juice; the splitting of fats into fatty acids and glycerin by the lipase of the pancreatic juice and the bile and the union of the acids with alkalies and their consequent saponification.

Mechanical d., the part of digestion carried on by mechanical means, viz., mastication, deglutition, the churning and peristaltic action of the stomach and intestines, defecation. **Pancreatic d.**, the part of digestion influenced by the pancreatic ferments. **Salivary d.**, the conversion of starch into dextrin and maltose by the ptyalin of the saliva and of some maltose into dextrose by the maltase of the saliva.

digestive. A drug or other agent used to cure disorders of digestion or to cause the digestion of food.

digit dij'-it. A finger or toe.

digital. Pertaining to the fingers or toes.

digitalin. A glucoside of digitalis, one of the active principles of the latter. Dose, $\frac{1}{64}$ - $\frac{1}{32}$ grain.

digitalin. A glucoside of digitalis; dose, $\frac{1}{100}$ - $\frac{1}{50}$ of a grain.

digita'lis. A drug derived from the *Purple foxglove*. Its principal therapeutic uses are as a heart tonic and diuretic. Its results are due to its action on the nervous system, the heart and the blood-vessels. It stimulates the parts of the nervous system which slow the heart action, it contracts the arteries, which helps in the slowing of the heart action and in increasing its force. Blood-pressure is raised, the circulation and, consequently, muscle tone are improved so that the organs, especially the heart and kidneys, function better. The excretion of urine is stimulated, and, if there is edema, it is lessened, because, the blood, being rendered less dilute on account of the extra water taken from it by the kidneys, absorbs the excess water in the tissues more readily. Dosage: Extract, $\frac{1}{4}$ grain; fluid-extract $\frac{1}{2}$ -3 minims; tincture, 5-30 minims; infusion, 1-4 drams.

digitox'in. A glucoside of digitalis. Dose, $\frac{1}{250}$ - $\frac{1}{125}$ of a grain.

dilata'tion. An abnormal stretching or distention of a cavity or organ. **D. of the heart**, expansion of one or more of the heart cavities as the result of loss of tone or weakening of the heart muscle. **D. of the stomach**, enlargement of the stomach. This happens most frequently as the result of (1) obstruction of the pylorus by scar tissue, tumors, adhesions and the like; (2) weakness of the stomach walls; this may be due to general weakness of the body, to habitually eating too much or to chronic gastritis.

dila'tor. An instrument used to stretch cavities.

dil'uent (Lat. *diluere* = to wash).

(1) An agent used to dilute or render a solution less concentrated or strong. (2) A drug or other agent that increases the fluidity of secretions.

dilu'tion. (1) The act of diluting or rendering less strong. (2) That which is diluted.

diox'id. A molecule made up of two molecules of oxygen.

diphtheria *dif-the'-re-ah* (Gr. *diphthera* = leather, a membrane). A disease caused by *Bacillus diphtheriæ*. The mucous membrane of the throat is the more common seat of the disease; the germ lodges there and causes inflammation which results in a fibrinous exudate. The fibrin and dead mucous membrane form the characteristic membrane. There is swelling of the larynx and pharynx with consequent dyspnea. The germ is likely to form a virulent toxin which is absorbed by the blood and is responsible for the constitutional symptoms. These are: General malaise, fever, though usually not very high— 101° - 103° F.,—anemia, prostration. In mild infections the symptoms may not be very pronounced; but in severe infections the prostration is very marked and death is likely to result from heart failure; another cause of death is asphyxia, on account of closure of the larynx by the membrane. If recovery occurs, the membrane begins to fall off in small shreds after about ten days from the onset of the disease. **Cutaneous d.**, infection of abrasions in the skin by the *d. bacillus*. **D. of the eye**, a very serious inflammation of the eye due to infection by the *d. bacillus*. **Laryngeal**

d., that in which the inflammation and membrane are located in, or extend into, the larynx. It is the cause of membranous croup. **Nasal d.**, that in which the membrane forms in the nose. Patients suffering with this form of diphtheria are a great source of danger to others as, frequently, their health is so little affected that it is not known that they have the disease and they may harbor the germ for months. **Pharyngeal d.**, that in which the inflammatory process is in the pharynx. **Pseudo d.**, a condition of the throat which greatly resembles that caused by diphtheria, but is due to infection by streptococci and not the d. bacillus. **Pseudo d.**, frequently complicates scarlet fever and measles.

diplococcus (Gr. *diploos*=double and *kokkos*=a berry). A micrococcus whose spherules are joined in pairs.

diplopia, diplopy (Gr. *diploos*=double and *opas*=the eye, sight). Double vision, *i. e.*, in consequence of some defect of the eye, an individual sees two objects when there is but one. **D. binocular**, that due to lack of muscular coördination of the eyes. **Crossed d.**, that due to strabismus. **Monocular d.**, that in which only one eye is affected; this is often due to neurosis or some disease of the eye.

director (Lat. *dirigere*=to direct). That which directs. **Grooved d.**, an instrument used to guide a knife or other instrument in surgery.

disaccharids *dis-ak'-ar-ids*. Compound sugars, such as cane sugar, maltose, lactose. A disaccharid is a combination of two simple sugar or mono-

saccharids as glucose and levulose—with a loss of H_2O .

disarticulation (Lat. *dis*=apart and *articulus*=joint). The separation of a joint.

discharge'. (1) A giving off of morbid matter. (2) The matter given off. (3) Liberation of electricity.

discharger. An appliance for setting free stored electricity.

discrete' (Lat. *discretus*=separate). Separate, not running together. The term is often used in connection with exanthema in which the spots or pustules remain separated from each other. It is the opposite of confluent.

disease' (Old Fr. *des*=away and *aïse*=ease). An abnormal condition of the body. Disturbance of some vital function or functions, of the body.

disinfect' (Lat. *dis*=apart and *inficere*=to corrupt). To free from organisms as bacteria, molds, and yeasts.

disinfectant. An agent that will kill microorganisms.

disintegration (Lat. *dis*=apart and *integer*=entire). The breaking or reduction of a substance into its component particles. Decay.

dislocation (Lat. *dis*=apart and *locare*=to place). The displacement of an organ, more especially the displacement of a bone at an articulating surface.

dissect' (Lat. *dissecare*=to cut up). To cut apart, as a body, for anatomical study. To analyze.

disseminated (Lat. *dis*=apart and *seminare*=to sow). Scattered, dispersed.

dissipating. The act of scattering. Given to excess.

dissocia'tion. (1) The act of disuniting or breaking into parts. (2) The partial decompositions of compounds by heat.

dissolu'tion. (1) The act of dissolving or melting. (2) Death.

dissolve'. (1) To cause a substance to melt in, or mix with, a liquid; (matter in any of its physical states—*i. e.*, solid, liquid or gas—can be dissolved in a liquid). (2) To melt. (3) To break into separate parts.

dissol'vent. (1) The liquid in which anything is dissolved. (2) The agent used to cause a substance to dissolve.

dis'tal. Peripheral. Away from the center, head, or origin. The opposite of proximal.

distemp'er. (1) A name given to several infectious diseases of animals. (2) Formerly, the word was used as a synonym of disease.

distillate. That which distils over in the process of distillation.

distilla'tion. The process of vaporizing a substance and condensing the vapor; *e. g.*, water can be distilled by boiling it, conducting the steam through a short pipe or tube into a closed vessel—the receiver—placed in a larger vessel containing cold water. The steam will condense, and so become water, in the receiver. If the latter and the conducting tube are sterile, this water will be practically pure, unless the impurities are volatile as is not ordinarily the case, since all non-volatile substances will remain in the vessel in which the water was boiled. Alcohol can be distilled from water, or other

substance that has a higher boiling point than it has—78° C.—172° F.,—by raising the liquid to about 80° C. and keeping it at that temperature. As soon as the liquid reaches 78–80° C. the alcohol will pass as a gas through the conducting tube into the receiver, where it will condense. The temperature of the liquid must not be allowed to exceed 80° C. or some of the water will distil over with the alcohol. **Destruc'tive d.**, that produced when the temperature is raised sufficiently high to decompose a substance and thus evolve new products; *e. g.*, the destructive distillation of wood and coal from which various gases and many other substances are derived. **Dry d.**, the distillation of a solid substance.

diure'sis (Gr. *dioureō*=to pass urine). The excretion of an excessive amount of urine.

diuret'ic. A medicine or other agent that increases the secretion of urine. Diuretics may accomplish their purpose by: (1) Increasing the general blood-pressure; (2) causing dilation of the renal blood-vessels; (3) by stimulating the renal secreting cells; (4) by flushing the urinary tubules as happens when an adequate amount of liquids is drunk.

diure'tin. A compound of sodium salicylate and theobromin. Dose, grains 15.

div'alent. See Valence.

diver'gence (Lat. *dis*=apart and *vergere*=to incline). To branch, to incline in different directions.

divul'sor (Lat. *divellere*=to tear apart). An instrument used for dilating tubes or small cavities.

diz'zy. Giddy. Confused.

dor'sal (Lat. *dorsum* = the back).

Pertaining to the back.

dor'sum (Lat. *the back*). The back, a ridge. The posterior surface of certain parts, as the foot, hand, etc.

dose. The quantity of medicine usually given at a time.

Maximum d., the largest amount of a drug that may be given with safety. **Minimum d.**, the smallest quantity of a medicine that can be expected to produce any effect.

douche doosh. A stream or jet of fluid directed against a part or into a cavity. The principal uses of douches to the exterior of the body are as nerve tonics and to relieve congestion in the tissues under the area of application. The chief reasons for douching body cavities are: For cleansing, to reduce congestion or inflammation, to arrest hemorrhage. When used for either of the two last purposes the douche must be about 120° F. **Air d.**, a jet of air forced into a cavity. **Scotch d.**, a douche to the exterior of the body for which hot and cold water are used alternately.

Do'ver's Powder. A combination of opium, ipecac, and sugar of milk. A powder of ten grains contains gr. 1 of opium, gr. 1 of ipecac, grs. 8 of sugar of milk. The medicinal value of the drug depends upon the two first ingredients.

drachm dram. See Dram.

draft or draught draft. (1) A large quantity of medicine taken at one time. (2) A strong current of air.

drain. (1) To draw off gradually. (2) to filter. (3) A tube or absorbent material inserted in a wound to facili-

tate drainage. **Cigarette d.**, those made of gauze, or lamp-wicking enclosed in rubber tissue, gutta percha or similar material.

dram or drachm. A weight of 60 grains, apothecaries' weight, and 27.34 grains avoirdupois weight. **Fluid d.**, 60 minims or the eighth part of a fluid ounce.

dras'tic (Gr. *drao* = to effect). Severe. Thorough. A powerful purgative.

dres'sing. (1) The treatment of a wound. (2) The material used in the dressing of wounds. **Absorptive d.**, material that will absorb blood or discharge from a wound; *e. g.*, dry gauze. **Disinfectant d.**, one saturated with a disinfectant; *e. g.*, iodoform gauze, wet bichlorid gauze, etc. **Occlusive d.**, one that forms an impermeable covering for a wound, as collodion.

drop'sy (Gr. *hydropos* from *hydor* = water). An accumulation of an abnormal amount of serous fluid in the tissues, or cavities of the body. It may result from (1) chronic congestion of one or more of the internal organs that brings about venous stasis; *e. g.*, chronic heart disease, cirrhosis of liver, and emphysema; (2) local obstruction to the circulation by tumors, emboli, etc.; (3) changes in the composition of the blood, as in anemia; (4) abnormal permeability of the capillary walls.

drug. Any substance used as medicine.

drum. (1) A membrane stretched tightly across the opening of a cavity. (2) The tympanum of the ear, *i. e.*, the membrane dividing the external from the middle ear.

duct. A channel or tube for the passage of secretions or excretions from a gland.

duc'tile (Lat. *ducere* = to draw). Pliant, pliable. The property of being easily stretched or molded.

duct'less. Without a duct. See Glands.

duct'us. Latin for duct.

dull. (1) Blunt. (2) Stupid. (3) Not resonant.

dumb. An inability to speak.

duo'de|nal. Pertaining to the duodenum.

duodeni'tis. Inflammation of the duodenum.

duo'de|num (Lat. *duodeni* = twelve). The portion of the small intestine connected to the stomach. It was so named because it is about twelve finger-breadths in length.

dura mater (Lat. *hard mother*). The outermost and toughest of the three membranes—meninges—covering the brain and spinal cord.

duri'tis. Inflammation of the dura.

dynam'ic (Gr. *dynamis* = power). Pertaining to force, strength, power, or to phenomena due to force.

dynam'ics. The science which treats of movement and force.

dy'namite (Gr. *dynamis* = force). An explosive compound of nitroglycerin and infusorial silica.

dy'namo. A machine for generating electric currents by the conversion of mechanical power into electricity.

dys dis. A prefix derived from the Greek signifying bad.

dys'entery (Gr. *dys* = bad and *enteron* = the bowel). Inflammation of the bowel wall. The condition is attended

with abdominal pain, tenesmus, and the frequent passage of small stools containing blood and mucus, and there is usually marked prostration. **Amebic d.**, that due to infection by the *Ameba cola*, which is usually taken into the body in infected drinking water. The disease is encountered most frequently in tropical countries. **Bacillary d.**, that due to infection by the *Shiga bacillus*. Both amebic and bacillary d. are very serious and often fatal diseases. **Catarrhal d.**, a less serious form of dysentery than the other two and more common in temperate climates. No specific organism has been isolated.

dysmenorrhea *dis-men-o-re'-ah* (Gr. *dys* = hard, *men* = a month and *rheo* = a flowing). Difficult and painful menstruation. Common causes are inflammation or congestion of the uterus and displacements of the uterus.

dyspep'sia (Gr. *dys* = hard and *pepto* = to digest). Chronic indigestion. **Acid d.**, that characterized by increased acidity of the gastric juice. **Catarrhal d.**, that marked by a catarrhal condition of the stomach. **Fermentative d.**, that marked by fermentative processes in the stomach. **Flatulent d.**, that characterized by the presence of gas in the stomach. **Intestinal d.**, that in which the intestine is the seat of the disturbance. **Nervous d.**, that due to nervous disorders, it may be caused by an excessive irritability of the nerves of the stomach or by reflex irritation from other organs.

dyspep'tic. Pertaining to dyspepsia. A person who has dyspepsia.

dysphagia *dis-fa'-jea* (Gr. *dys* = bad and *phagein* = to eat). Difficulty in swallowing.

dyspha'sis (Gr. *dys* = bad and *phasia* = speech). Lack of proper connection in speech due to some brain lesion.

dyspho'nia. Difficulty in speaking due to some disease or malformation of the speech organs.

dyspne'a. Difficult or labored breathing. Its chief causes are: Diseases of the lungs or other organs of respiration; obstruction in the larynx; asthma; pressure of an aneurism, tumor, etc., on the recurrent laryngeal nerve; paralysis of the muscles of respiration; abdominal distention; anemia.

dysu'ria. Painful or difficult voiding of urine.

E

Ear. The organ of hearing. It consists of three main parts named the external, middle and inner ear. The external ear comprises the auricle, or pinna and the auditory canal; it is divided from the middle ear by the drum membrane or tympanum. The middle ear is an irregular bony cavity situated in the temporal bone of the skull; it has two openings into the inner ear both of which are covered with a membrane; they are known as the *fenestra rotunda* or *round window* and the *fenestra ovalis* or *oval window*. In the posterior wall of the cavity there is an opening into the mastoid antrum and in the anterior wall, an opening into the Eustachian tube. Stretching across the middle ear, from the tympanum to the oval window is a chain of three

small bones called from their shape the *malleus*—hammer, *incus*—anvil, and *stapes*—stirrup. The internal ear is divided into three distinct, though connected, parts known as the *vestibule*, *cochlea* and *semicircular canals*. The vestibule is the central of the three cavities, the oval window is in its outer wall. The cochlea is a spiral tube, and contains the peripheral nerve endings of the nerve of hearing—*i. e.*, the auditory nerve. The semicircular canals are three semicircular tubes which communicate with the vestibule. They contain nerve endings of the vestibular branch of the auditory nerve, which are concerned, not with hearing, but with the maintenance of equilibrium.

ebulli'tion (Lat. *ebullire* = to bubble up). Boiling, bubbling.

ecbol'ic (Gr. *ekbole* = a throwing out). A medicine or other agent used to cause contraction of the uterus and thus promote the expulsion of the fetus.

eccentric *ek-sen'-trik*. (1) At a distance from the center. (2) Going from the center. (3) Peculiar.

ecchymosis *ek-ki-mo'-sis*, pl. *ecchymoses* (Gr. *ekchymomai* = to shed the blood). (1) An extravasation of blood or slight hemorrhage, under the skin. (2) The discolored spot produced by such extravasation.

ecchyma'tion. Pertaining to or resembling an ecchymosis.

eclamp'sia (Gr. *ek* = out and *lampeo* = to flash). A term applied to sudden attacks of convulsions that are the result of a temporary cause; *e. g.*, the convulsions of pregnancy

due to nervous irritation by toxic substances retained in the blood; and the convulsions of childhood from reflex irritation due to indigestion, worms, the poisons of disease germs, etc.

eclec'tic. Selecting.

ec'stasy. A trance-like state. Excessive rapture.

ectat'ic. Distended. Capable of being stretched.

ec'toblast (Gr. *ektos*=outside and *blastos*=a sprout). The ectoderm or epiblast. The outer membrane of a cell. The outer layer of the young embryo.

ec'toderm. See Ectoblast.

ecto'genous (Gr. *ektos*=outside and *gennao*=to produce). Developing outside the body.

ecto'pia (Gr. *ek*=out and *topos*=a place). The displacement of a part or organ, especially congenital displacements.

ectop'ic gestation. Pregnancy in which the fetus is not in its proper place. See Pregnancy.

ecze'ma. A non-contagious inflammation of the skin, characterized by lesions of various kinds; usually, there are vesicles, pustules, scales and crusts accompanied by more or less itching and discharge. Common causes are digestive disturbances, debility, anemia, rheumatism and external irritants such as poor soaps, cold, heat, etc.

ede'ma. Swelling due to an accumulation of serous fluid in the tissues; for causes see Dropsy. The edema may be confined to some one part or organ of the body or it may be general, *i. e.*, involving the greater part of the body. **Inflammatory e.**, that due to inflammation. **E. of the lungs,**

an effusion of serous fluid into the air-cells and connecting tissue of the lungs. The condition is very serious as the aëration of the blood is interfered with. **Malignant e.**, edema due to infection by the bacillus of malignant edema. The infection which is a rare, but very serious one, usually appears after traumatism, or in suppurating wounds.

edem'atous. Of the nature of, or affected by, edema.

edes'tin. A protein substance contained in wheat, rye, etc.

ed'ible. Fit for food.

eff'erent (Lat. *ef*=out and *ferere*=to bear). To carry outward as from a nerve center.

efferves'cent (Lat. *ef*=out and *ferescere*=to boil). Bubbling due to the presence of gas. **E. powder**, a seidlitz powder.

effica'cious. Effective, adequate for its purpose.

effleurage *ef-flūur-ahzh'*. One of the movements of massage which consists in stroking from the periphery toward the heart.

efflores'cence. A rash or other skin lesion.

efflores'cent. (1) Flowering. (2) The loss of water of crystallization; *i. e.*, the water that certain crystalline substances give up when heated, thereby losing their crystalline form and becoming powdery.

efflu'vium, pl. **effluvia** (Lat. *effluere*=to flow out). An exhalation with a disagreeable odor.

efflux'. (1) An effusion. (2) The act of pouring out. (3) To expire.

effuse'. To spread.

effu'sion. (1) The escape of fluid from its containing vessels into tissues or cavities. (2) The effused fluid.

e. g. Abbreviation of the Latin *exempli gratia*=for example, for instance.

egesta e-jest'-ah (Lat. *egerere*=to carry out). Waste matter given off from the body, *e. g.*, fecal matter.

Ehrlich's Theory. The theory advanced by Prof. Ehrlich, of the Royal Prussian Institute for Experimental Therapy, that in all the cells of the body there are certain chemical substances that he calls *cell-receptors* which have the power of taking from the blood and lymph the material required for the nourishment of the cell. The receptors combine also with bacterial substances but these, unlike the food material, destroy the receptors. Unless injury is carried too far, however, regeneration of the substance known as *receptors* will take place in such abundance that there will be more than enough for the cells' requirements and the surplus will be carried off by the blood stream. The free receptors form the antitoxins and protect the body from a second attack of the disease produced by the bacteria which gave rise to their formation; because, if such bacteria again gain entrance to the body the toxins they produce will unite with the antitoxins and thereby be rendered harmless.

ejac'ulation (Lat. *ejaculari*=to cast out). The ejection of semen.

ejec'ta. Excretions, waste matter that is expelled from the body.

ejec'tion (Lat. *ejicere*=to throw). The act of expelling or casting off.

elastic'ity. The property which enables a substance to resume its shape or size after it has been stretched by external force.

elas'tin. A yellow, albuminoid substance that is the main constituent of yellow elastic tissue.

ela'ted. Proud. Exultant.

elat'erin. The active principle of elaterium, a powerful hydrogogue cathartic. Dose, $\frac{1}{30}$ - $\frac{1}{15}$ grain.

elate'rium. A drug obtained from a plant of the cucumber family. (See Elaterin.) Dose, $\frac{1}{10}$ - $\frac{1}{3}$ grain.

el'bow. The joint between the arm and the forearm.

elec'tive. Pertaining to the right of choice.

elec'tric. Pertaining to electricity. **E. conductors**, substances over which electric currents will pass readily. (See Conductor.) **E. circuit**, the path followed by an electric current from one body to another. **E. current**, the discharge of electricity from one body, machine, etc., to another. The usual sources of electric currents are chemical or mechanical action, examples of the latter are friction, and heat. **E. insulators** or **non-conductors**, substances which do not readily conduct electric currents. **E. potential**, the power of doing electrical work.

electricity (Gr. *elektron*=amber. Electricity received its name because it was found by the ancients that amber, after being rubbed with silk or similar soft material, possessed the power of attracting light

bodies). A form of force or energy that manifests its existence by attractions and repulsions, by producing light, heat, chemical decomposition and various other phenomena. It is rendered active and it is evoked in bodies by chemical and mechanical action and by heat. The dynamo turned by steam or by water-power is an example of the means by which heat or mechanical energy can be turned into electrical energy, and the various batteries and cells containing chemicals which will, when the circuit is closed, react among themselves to produce an electric current, are examples of the means by which electricity is generated from chemical action. **Static e.**, that rendered active by mechanical action such as friction.

electrifica'tion. The state of being charged with electricity. **Negative e.**, that produced by rubbing such substances as amber, sealing wax, resin, sulphur, with flannel, fur or the like. **Positive e.**, the kind of charge that is obtained by rubbing glass with silk. It has been found that all bodies however electrified fall into one or other of these two classes and that bodies similarly charged repel each other but attract those oppositely charged.

elec'trify. To charge with electricity.

elec'tro. A prefix used to designate derivation from, or pertaining to, electricity.

elec'trode (Gr. *elektron*=amber and *hodos*=a path). Either one of the poles by which electricity passes into or from an electric battery.

electrol'ysis (Gr. *elektron*=amber and *lysis*=setting free). The decomposition of chemical substances by electricity.

elec'trolyte. A substance that can be decomposed by electricity.

electrometer. An instrument for determining the intensity of electricity.

elec'tron. A unit or an atom of electricity.

element. Any substance which cannot be separated into simpler substances by any known means. See page 261 for names and symbols of the common elements.

elephanti'asis. A disease resulting from obstruction of the lymphatics. The obstruction is most frequently caused by the worm that gives rise to the disease known as *Filariasis*; viz., the *Filaria bancroftiis*. The condition is associated with hypertrophy of the skin and subcutaneous tissues and edema. The leg and external genitals are the parts most commonly affected.

elimina'tion (Lat. *e*=out and *limen*=threshold). The act of expelling or ejecting. The expulsion of waste matter from the body.

el'ixir. Medicinal preparations of a drug, or drugs, in a syrup containing alcohol.

elytri'tis (Gr. *elytron*=a sheath, the vagina, and *itis*=inflammation). Inflammation of the vagina.

emacia'tion. Becoming thin.

emacula'tion (Lat. *e*=out and *macula*=a spot or stain). The removal of freckles or other blemishes. To amend.

em'anation (Lat. *e*=out and *manare*=to flow). That which issues or flows from

something else. The act of issuing or passing off.

emas'culate (Lat. *emasculare*=to castrate). The removal of the testicles or of both penis and testicles.

embol'ic. Pertaining to an embolism.

em'bolism (Gr. *embole*=a plug). The carrying of an embolus from one part of the body to another by the blood.

em'bolus. A thrombus or blood clot that has been dislodged from the vessel in which it occurred and is carried along in the blood stream until it comes to a vessel which it cannot pass through. If the vessel in which the clot becomes lodged is an important one—*e. g.*, the pulmonary artery—sudden death is likely to occur. In such case, the patient usually sits up in bed suddenly, gasping for breath and evidently experiencing great agony. Death occurs within a few seconds. If the embolus lodges in an important vessel of the brain, either sudden death or paralysis of some part of the body is likely to occur. If, however, the vessel in which the embolus lodges is a small one, with anastomosing branches, there may be no harmful result. If the occluded vessel has no branches the tissues which it supplies will die, for lack of nourishment. Such dead areas are termed *infarcts*. The consequence of an infarct will depend upon its size and location.

em'bryo (Gr. *em*=in and *bryo*=to swell, to grow). (1) A rudimentary or undeveloped state. (2) The fetus is so called during the first three months of development.

embryol'ogy. The science which treats of the development of the embryo.

embryo'ma. A tumor containing embryonic elements.

embryon'ic, embryotic. Pertaining to or resembling an embryo.

em'bryotome. A cutting instrument used in performing embryotomy.

embryot'omy. The cutting up of a fetus or embryo in order to facilitate its removal from the uterus.

emen'dable. That can be cured or improved.

em'ery. A variety of corundum, a very hard mineral, that is used in powder form for polishing.

emery-paper. Paper to which emery has been made to adhere by means of glue.

em'esis or eme'sia (Gr. *emeo*=to vomit). The act of vomiting. The nervous mechanism involved in the act of vomiting is under the control of a center in the medulla oblongata. This center may be stimulated directly by substances brought to it by the blood or reflexly, through the sense of sight or taste, or by irritation of the nerves of the pharynx, stomach, heart, brain or other organ.

emet'ic. A drug or other agent that causes emesis. **Local or gastric e.**, a drug that causes emesis by its irritating action on the sensory nerves of the stomach. The more common ones are alum, ammonium carbonate, copper sulphate, sodium chlorid, mustard. **Systemic e.**, drugs which act directly upon the vomiting center in the medulla. The chief ones are apomorphin, antimony and potassium

tartrate, and ipecacuanha. Local emetics usually act more quickly than the systemic, causing emesis in about two minutes; their action is less enduring, and causes less depression and constitutional disturbances.

em'etin. A preparation of ipecac used as an expectorant and an emetic. It is likely to cause great depression. Dose, as an expectorant, $\frac{1}{100}$ - $\frac{1}{10}$ grain, as an emetic, $\frac{1}{10}$ - $\frac{1}{4}$ grain.

emigra'tion. The passage of white corpuscles through the walls of the capillaries.

em'inence (Lat. *e*=out and *manere*=to hand). A process or projection.

em'issary. An outlet.

emis'sion. The act of emitting or throwing out.

emit' (Lat. *e*=out and *mittere*=to send). To throw out, to discharge.

emmen'agog, emmenagogue (Gr. *emmēna*=menstrual discharge and *ago*=to lead). A drug or other agent which stimulates the menstrual flow. **Direct e.**, one which acts directly upon the uterus, as ergot, tansy, apiol. **Indirect e.**, one which acts by relieving a causative condition—*e. g.*, iron by relieving anemia will act as an emmenagog.

emmen'ic (Gr. *emmēna*=the menses). Pertaining to the menses.

emmetro'pia. The normal condition of the eye as regards its refractive power.

emmetrop'ic. The normal condition of the refractory apparatus of the eye which allows of parallel rays of light being focused on the retina.

emollient e-mol'-yent. Soothing, softening.

emo'tion (Lat. *e*=out and *movere*=to move). Excitement. Mental disturbance.

emphysema *em-fi-se'-mah* (Gr. *em*=in and *physaō*=to blow). **Cutaneous e.**, the presence of air in the cellular tissue. The condition may result from traumatism of the lungs or from rupture of the larynx, trachea, esophagus, stomach or intestines. **Pulmonary e.**, distention of the lungs with air. The condition is usually the result of rupture of some of the air vesicles of the lungs. It occurs most frequently in men who do a great deal of hard blowing as glass blowers and horn blowers; in those who have asthma, and in children who have adenoids.

empir'ic, empirical (Gr. *empeirikos*=experienced). (1) Knowledge based on experience. (2) A quack doctor.

emplas'trum. A plaster.

empye'ma (Gr. *empyema*=an abscess). A collection of pus in a cavity, especially the pleural cavity.

emul'sify. To make into an emulsion.

emul'sion. A milk-like liquid obtained by suspending oil in water. This is usually accomplished with the aid of some mucilaginous substance.

enam'el. The white substance which envelops and protects the dentin of the crown of the teeth. **E. germ**, the epithelial process from which the enamel of the tooth is developed.

enan'thema (Gr. *en*=in and *antheo*=to flower). An eruption on a mucous membrane.

enarthro'sis (Gr. *en*=in and

arthron = a joint). A ball and socket joint; *e. g.*, the hip and shoulder joints.

enceinte *ong-sant'* (Lat. *in* = around and *cingere* = to gird). Pregnant.

encephalalgia. Pain in the head.

encephalic (Gr. *en* = in, and *kephale* = the head). Pertaining to the brain or cranial cavity.

encephalitis. Inflammation of the brain.

encephalocele *en-se-fal-o-sēl*. Hernia of the brain.

encephaloma. Tumor of the brain.

encephalon. The brain.

encysted. Inclosed in a cyst or sac.

end. The extremity or termination. **E. artery**, one that does not anastomose with other arteries. **E. bulbs**, the bulb-like swellings which constitute the peripheral termination of some of the sensory nerves. **E. organs**, the peripheral terminations of some sensory nerves. **E. plates**, the terminations of motor nerves in the muscles.

endemic. Peculiar to a nation or locality. **E. disease**, any disease that is found almost constantly in a country or locality.

endermic (Gr. *en* = in and *derma* = skin). A term applied to the method of giving medicine in which a blister is raised and the drug placed under the raised epidermis.

en'do. A prefix derived from the Greek, signifying within.

end'oblast. The nucleus of a cell.

endocardi'tis. Inflammation of the endocardium. The inflammation is usually limited

to small patches and these are most frequently around the edges of the valve. The condition is due to germ infection, the germs being carried from their point of entry by the blood. It is thought that the germ of any acute infectious disease may thus affect the heart. The nature of the symptoms will depend upon the severity of the infection and the valve or valves affected.

endocar'dium. The membrane lining the cavities of the heart. It is continuous with the innermost layer of the walls of the blood-vessels.

endogenous *en-doj'-en-us* (Gr. *endon* = within and *gennao* = to produce). Originating within the body.

endolymph *en'-do-limf*. The fluid contained in the membranous labyrinth of the ear.

endometri'tis (Gr. *endon* = within, *metrum* = the uterus and *itis* = inflammation). Inflammation of the lining membrane of the uterus.

endomet'rium. The mucous membrane lining the uterus.

en'doblast. The nucleus of a cell.

endos'teum. The vascular membrane that lines the medullary cavities of bones.

endothe'lium. Pertaining to the endothelium.

endothe'lium (Gr. *endon* = within and *thelē* = a nipple). The serous membrane that lines the closed cavities of the body; *e. g.*, the pleural, peritoneal, lymphatic and joint cavities.

endotox'in. A toxin that is retained within the bacterial cell and does not pass from the cell as the *soluble* or *true* toxins do. The greater num-

ber of pathogenic bacteria produce toxins of the endotoxin type. Important exceptions are the bacillus diphtheriæ and bacillus tetani.

enema. A clyster. Liquid introduced into the intestine for the purpose of cleansing it or of supplying medication, for either local or systemic effect, or nourishment.

en'ergy. The power to move or do work. **Biotic e.,** that peculiar to living things. **Conservation of e.,** the principle or law that energy cannot be created or destroyed but may be changed from one form to another—*e. g.*, chemical energy may be changed to heat energy, heat energy to electrical energy and so on. **Kinetic e.,** that represented by matter in actual motion. **Potential e.,** that represented by matter which is at rest, but which is capable of movement or of producing work or motion.

enerva'tion. Lack of energy. Weakness.

engorged'. Congested. Filled to excess with blood or other fluid.

en'siform (Lat. *ensis*=sword and *forma*=form). Shaped like a sword. **E. cartilage,** the lower part of the sternum.

enteral'gia (Gr. *entera* = the intestine and *algos*=pain). Pain in the intestines.

enter'ic (Gr. *enterikos*=in the intestine). Pertaining to the intestines. **E. fever,** typhoid fever.

enteri'tis. Inflammation of the intestine, especially of the small intestine.

en'tero (Gr. *entera*=the intestine). A prefix used to denote the intestine.

enterocly'sis. Liquid injected

into the intestine with the expectation that some of it will be absorbed and thus provide the body with extra fluid. Some of the purposes for which such extra fluid is required are: To replace that lost by hemorrhage; to dilute poisonous substances, either those due to bacteria or to faulty metabolism; to make the heart contract more slowly and forcibly; to stimulate the kidneys.

enterocoli'tis. Inflammation of the small intestine and the colon.

enteroki'nase. A constituent of the intestinal juice which changes the trypsinogen of the pancreatic juice into trypsin.

enter'olith. A stone in the intestines.

enteropto'sis. Prolapse of the intestine.

enterorrhagia *en-ter-o-rah'-je-ah.* Hemorrhage from the intestine.

enterorrhaphy *en-ter-or-a'-je.* The sewing up of a perforation of the intestine.

enteros'tomy. A surgical operation for the formation of an intestinal fistula.

enterot'omy. Incision of the intestine.

ent'oblast (Gr. *entos*=within and *blastos*=a sprout). (1) The nucleus of a cell. (2) The entoderm or hypoblast.

ent'oderm. The innermost layer of the blastoderm, the delicate membrane which results from the splitting up of the ovum after impregnation. From the entoderm are derived the cells which go to form the majority of the secretory glands, the epithelium of the greater part of the

alimentary canal and that of the bladder and urethra.

enu'cleate (Lat. *e*=away and *nucleus*=a kernel). To shell out, as a kernel from its husk.

envi'ronment. Surroundings. Influence.

enzymes *en-zīmz* (Gr. *en*=in and *zyme*=leaven). Organic substances, of unknown composition, that are produced by living cells and act as catalyzers—*i. e.*, they accelerate chemical reactions. **Amylases e.**, those which convert starch into dextrin and maltose; *e. g.*, the ptyalin of the saliva, the amylopsin of the pancreatic juice and the diastase of malt. **Coagulating e's**, those which cause coagulation; *e. g.*, the rennin of the gastric juice. **Hydrolytic e's**, those which promote hydrolysis; *e. g.*, the ferments which aid in digestion, this process being one of hydrolysis. **Inverting e's**, sugar-splitting enzymes; *e. g.*, the maltase of the saliva and the intestinal juice, which converts maltose into glucose and the sucrase and lactase which do likewise with sucrose and lactose. **Oxidizing e's**, ferments in the body tissues which further oxidation. **Lipolytic e's**, fat-splitting enzymes, *e. g.*, the lipase of the pancreatic juice. **Proteolytic e's**, those which split proteins; *e. g.*, the pepsin of the gastric juice, the trypsin of the pancreatic juice, and the erepsin of the intestinal juice.

e'osin. A red-colored dye much used for staining specimens in biological laboratory work.

eosin'ophil. A cell or structure that is easily stained with eosin. Certain of the white blood-corpuscles are so called for this reason.

ephem'eral (Gr. *epi*=upon and *hemera*=a day). Transient. Lasting but a short time.

ephidro'sis (Gr. *epi*=upon and *drosos*=sweat). Excessive sweating.

ep'iblast (Gr. *epi*=upon and *blastos*=a germ). The ectoderm or external layer of the blastoderm. From it are derived the cells which form the epidermis, the nails, hair, mammary and salivary glands, the nervous system, sense organs, and parts of the alimentary canal of the fetus.

epiblas'tic. Derived from the epiblast.

epicos'tal (Gr. *epi*=upon and Lat. *costa*=a rib). Upon a rib.

epidem'ic (Gr. *epi*=upon and *demos*=the people). Affecting many people at the same time. A disease that spreads rapidly through a community or becomes widely diffused.

epider'mal, epider'mic. Pertaining to the epidermis.

epider'mis (Gr. *epi*=upon and *derma*=the skin). The cuticle or scarf-skin which covers the derma or true skin.

epider'moid. Resembling the epidermis.

epigas'trium. Pertaining to the epigastrium, the upper middle region of the abdomen. See Abdomen.

epiglot'tis. The thin leaf-shaped piece of cartilage that is attached by one end to the upper edge of the larynx and which, during the act of swallowing, is drawn downward and backward so that it covers the glottis and thus prevents food, etc., entering the larynx.

epil'atory. An agent that destroys hair.

ep'ilepsy. A chronic disease characterized by attacks of loss of consciousness, which may or may not be associated with convulsions. **Idiopathic** or **true e.**, that for which no cause can be discovered. **Jacksonian e.**, periodic attacks of convulsions occurring as the result of some local trouble in the brain; *e. g.*, pressure on the brain from a fractured bone. **Reflex e.**, that due to reflex irritation such as may be caused by worms, trouble with the organs of generation, etc. **Symptomatic e.**, that due to a discoverable cause. **Toxemic e.**, that due to the presence of toxic substance in the blood.

epilep'tic mania. Insanity following an epileptic seizure.

epilep'tiform. Resembling, but not identical with, epilepsy.

epiphysis *e-pif'-e-sis.* (1) A piece of bone that in early life is separated from a long bone by cartilage, but later becomes part of the bone. (2) The pineal gland, a small vascular body in the posterior part of the third ventricle of the brain.

epispas'dias. A fissure of the urethra.

epispas'tic (Gr. *epi*=upon and *spaō*=to draw). A blister. Causing a blister.

epistax'is (Gr. *epi*=upon and *stazo*=to drop). Hemorrhage from the nose.

epithe'lial. Consisting of, or pertaining to, epithelium.

epithelio'ma. A cancer of the skin or mucous membrane.

epithe'lium (Gr. *epi*=upon and *thēlē*=a nipple). The external layer of cells of the skin and the mucous and serous membranes.

equa'tion (Lat. *æquus*=equal). A symbolical representation of a chemical reaction.

equilib'rium (Lat. *æquus*=equal and *libra*=balance). (1) Evenly balanced. (2) Equal diffusion or distribution.

equiv'alent (Lat. *æquus*=equal and *valera*=worth). Of equal value or power.

erec'tile. Capable of being raised. **E. tissue**, that which is capable of becoming rigid, congested, and elevated, as that of the penis.

erec'tor. A muscle which is concerned in erection, or one which raises a part.

er'got. (1) A disease due to a fungus that attacks rye, maize, and other cereals. (2) A drug obtained from the grain of plants thus affected. This drug causes contraction of the arterioles and of unstriated muscle tissue and is therefore used as a hemostatic to check secretions, and to cause contraction of the uterus. Dose: extract 5-15 grains; fluid-extract $\frac{1}{2}$ -2 drams; wine 1-4 drams.

er'gotin. One of the alkaloids of ergot. Dose, extract, 1-10 grains. **Bonjean's e.**, a purified extract that is given hypodermically.

er'gotol. A preparation of ergot that is given hypodermically. Dose, 5-20 minims.

ero'sion. Corrosion, eating away. Destruction of tissue by ulceration.

errat'ic (Lat. *erraticus*=given to wandering). (1) Irregular. Not of the usual type. (2) Eccentric.

eructa'tion. Belching. A sudden ejection of gas or other matter from the stomach.

erup'tion (Lat. *eruptus* = to break out). (1) The act of breaking out. (2) The breaking out upon the skin of a rash, vesicles, pustules, or other lesion as the result of (a) some constitutional disorder, (b) disease, or (c) the taking of certain drugs. (3) The lesion thus produced. Eruptions due to drugs are sometimes caused by irritation of the skin by the drug when some of it is eliminated in the perspiration, and the eruption may be retarded or prevented by washing the skin frequently.

erysip'elas. (Gr. *redness of the skin*). An acute infection of the skin caused by the *Streptococcus pyogenes*. It is characterized by excessive redness that ends abruptly instead of fading gradually as in other forms of inflammation. Blebs often form and, in severe infections, pustules. There is usually an initial chill followed by a high temperature which continues for four or five days and falls by crisis. The germ enters the body through wounds and abrasions in the skin or mucous membrane.

erythe'ma (Gr. *erythros* = red). Redness of the skin due to capillary congestion. Common causes are: gastro-intestinal disorder; the presence of toxic substances in the blood; excessive heat; irritation by poisonous plants. Certain drugs as belladonna, chloral, and arsenic sometimes produce an erythema-like rash and the eruption of scarlet fever is of this nature.

eryth'roblast (Gr. *erythros* = red and *blastos* = a germ). One of the nucleated red blood-cells which exist in bone marrow, especially that of

the ribs, from which the red blood-corpuscles are derived.

eryth'rocyte. A red blood-corpuscle. See Corpuscle.

erythrodex'trin. A dextrin which is turned red by iodine.

erythromelal'gia. A vasomotor disorder which affects the hands and feet. The parts become red and painful, more so when they hang down. The condition is known also as *red neuralgia*.

erythru'ria (Gr. *erythros* = red and *urine*). Red urine.

eschar *es'-kar* (Gr. *eschara* = a scab or scar). A hard slough or crust of dead tissue, a scab.

escharot'ic. A substance that will burn or corrode tissue.

Esmarch's Bandage. An india-rubber bandage used to expel blood from the portion of a limb that is to be operated upon and to control hemorrhage. Named after the inventor, a German surgeon.

esophageal *es-of-aj-e'-al*. Pertaining to the esophagus.

esoph'agus (Gr. *oiso* = to bear and *phagein* = to eat). The canal connecting the pharynx and the stomach.

es'sence. (1) A necessary constituent. The cause of being. (2) An alcoholic solution of a volatile oil.

essen'tial. Important. Necessary. Spontaneous or primary; said of a disease.

es'ter. An ethereal salt. Whenever an acid acts upon an alcohol the acid is neutralized and an ester, which is analogous to a salt, is formed.

estivo-autum'nal. See Malaria.

ethane. A colorless, tasteless hydrocarbon gas that is lighter than air and burns

with a slightly luminous flame. It is one of the constituents of coal gas and of the natural gases of petroleum wells. Ethyl alcohol and acetic acid can be prepared from it, and many medicines and other hydrocarbon substances are derived from it.

ether (Lat. *ather*=the air, the sky). (1) A medium, so subtle that it cannot be perceived, that fills, not only the space between the sun, earth, and other planets, but also that existing between the molecules of all matter whether solid, liquid, or gaseous. (2) A very volatile, inflammable liquid prepared by heating ethyl alcohol with sulphuric acid. It is used as a solvent for organic matter and as an anesthetic, both general and local; for general anesthesia it is given by inhalation, for local it is sprayed on the skin, in which case it acts by chilling the part to which it is applied, because of the rapidity with which it evaporates. It is used medicinally as an antispasmodic, an anthelmintic, a carminative, and a heart stimulant. Dosage of preparations administered by mouth: spirits of e.—which has 32.5 parts of ether and 67.5 of alcohol—1 dram; compound spirits of e. (Hoffman's anodyne) 32.5 per cent. ether with alcohol and ethereal oil—1-2 drams. Dilute e., that containing 83 per cent. of ether and 17 per cent. of alcohol. **Stronger e.** (*ather fortior*), that containing 96 per cent. ether and 4 per cent. alcohol.

ethe'ral. (1) Pertaining to, resembling, or containing ether. (2) Delicate.

etheriza'tion. The administra-

tion of ether to produce anesthesia.

eth'erize. To administer ether in order to cause insensibility.

eth'moid (Gr. *ethmos*=a sieve and *eidos*=form). (1) Resembling a sieve. Cribriform. The cribriform bone situated between the two orbits, at upper part of the posterior wall of the nose and joined at the back to the base of the skull. It enters into the formation of the orbital and nasal cavities and the base of the skull.

ethmoidi'tis. Inflammation of the ethmoid bone.

eth'yl. The univalent alcohol radical. **E. alcohol**, ordinary grain alcohol (see Alcohol). **E. bromid**, a colorless, volatile, very inflammable liquid made from ether, alcohol, and potassium bromid. It is used as a general anesthetic for short operations. **E. chlorid**, a colorless, inflammable liquid that is volatilized at body temperature. It is used principally as a local anesthetic. It is applied in the form of a spray which, if the tube containing the liquid is held in the hand, will issue from it almost as soon as the tube is uncapped. Too much must not be used, for it volatilizes so quickly that it causes such intense cold that freezing of the tissues to which it is applied will result.

eth'ylene. A colorless, poisonous, inflammable gas. It is one of the essential constituents of illuminating gas.

etiol'ogy (Gr. *aitia*=cause and *logos*=a discourse). The science or study of the causes of disease.

eucain *u'-ka-in* or *u'-kän*. A proprietary preparation used

in a 2-10 per cent. solution, as a local anesthetic.

eucalyp'tol. A colorless liquid obtained from the oil of eucalyptus. Dose, 5-10 minims.

eucalyp'tus globulus. The blue gum tree from the leaves of which a fluid-extract and oil are procured that are used medicinally for their antiseptic, antimalarial, diaphoretic, and stimulant expectorant properties. Dosage: fluid-extract, 15-60 minims; oil, 5-10 minims.

eugen'ics (Gr. *eu*=well and *genesis*=source). The study and cultivation of conditions that will improve the race.

eu'genol. An antiseptic liquid obtained from the oil of cloves.

euon'y mus, wahoo. A drug derived from the bark of the roots of certain shrubs and trees and used for its cholagog, aperient, diuretic, and tonic properties. Dosage: extract 1-5 grains; fluid-extract, 1-2 drams.

eupato'rium, boneset. A drug obtained from the leaves and tops of certain plants. It is used as a tonic, diuretic, diaphoretic, and stomachic. Dose of fluid-extract 10-60 minims.

eupne'a. Normal respiration.

Eustachian u-sta'-ke-an. Named after Eustachius, a famous Italian physician and anatomist who died 1574. **E. catheter,** an instrument used to dilate an Eustachian tube when it becomes blocked or contracted. **E. tube,** the canal leading from the middle ear to the upper part of the pharynx, which serves to ventilate the middle ear and to equalize the pressure on both sides of the drum membrane that is stretched between the external and middle portions of the ear.

E. valve, a fold of membrane that partly covers the opening between the inferior vena cava and the right auricle of the heart.

euthana'sia (Gr. *eu*=well, good, and *thanein*=to die). An easy death. Putting to death by some painless method.

euthen'ics. The science or study of the means of effecting race improvement by improving the environment.

euthy'mol. A proprietary preparation of eucalyptus and thymol used as an antiseptic mouth-wash, gargle, etc.

evac'uant. A drug or other agent that causes evacuation.

evacua'tion (Lat. *evacuare*=to empty). The act of emptying. Defecation. Material discharged from the bowels.

evagina'tion (Lat. *evaginare*=to wander). A protrusion of a part from its normal position.

ev'anescent (Lat. *evanescere*=to vanish). To disappear, volatile, unstable.

evapora'tion (Lat. *e*=out and *vapor*=vapor). The act or process of resolving into vapor. Evaporation may be visible to the eye, *e. g.*, the steam issuing from the spout of a kettle, the fog rising from the surface of a lake; or it may be invisible, as the evaporation of sweat from the surface of the body. **Loss of heat by e.,** heat is necessary for the production of evaporation; it requires about 0.5 calory of heat for the evaporation of one gram of water, and unless heat is supplied—in the form of fire, for instance,—it will be taken from near objects; examples are: (1) the heat necessary to evaporate sweat is taken from the body; (2) water in a porous water jar,

such as the unglazed earthenware jars used in tropical countries, will become cold because the water passes through the pores in the earthenware to the surface of the jar where it evaporates taking the heat that it requires in order to do so from the water in the jar; (3) food cooking in the upper part of a double boiler will not burn because the evaporation that is going on in the lower part will absorb so much of the heat. By increasing the rate of evaporation, or using liquids that evaporate readily, great cold may be produced, thus, ether, alcohol, benzene, and other liquids that volatilize quickly feel cold when applied to the surface of the body because they evaporate so quickly that they take more heat from the body than water does. See Ice.

ever'sion. Turning inside out. Turning back an eyelid so as to expose the conjunctiva.

eviscera'tion (Lat. *e*=out and *viscera*). The removal of the viscera, especially the bowels or the contents of an organ; *e. g.*, the removal of the internal structures of an eye.

evolu'tion (Lat. *evolutio*=an unrolling). The theory that all existing organisms have developed from less complex organisms or "*first forms of life*."

evul'sion. Forcible removal of a part.

ex. A Latin preposition, signifying out, over, away from. It is much used as a prefix.

exacerba'tion (Lat. *ex*=over and *acerbus*=harsh). The height of a disease. An increase in the severity of symptoms. The periodical rise of tem-

perature characteristic of remittent fevers.

exalgin *eks-al'-jin* (Gr. *ex*=out and *algos*=pain). A drug derived from acetanilid that is used as an anodyne and hypnotic. Dose, 5-10 grains.

exan'them, exan'thema, pl. ex-anthemata (Gr. *ex*=out and *antheo*=to blossom). An eruption. A disease that is characterized by a specific eruption.

exanthem'atous. Pertaining to, or of the nature of, an exanthem.

excava'tion. To hollow out. A hollow.

excen'tric, eccentric. (1) At a distance from the center. (2) Going from the center. (3) Peculiar.

exci'sion (Lat. *ex*=out and *cadere*=to cut). To cut away.

excitabil'ity. The power of responding to stimuli. Irritability.

exci'tant. A drug or other agent that stimulates an organ.

exci'tor. A nerve which, when stimulated, will excite the part or organ that it supplies to greater activity.

exclu'sion. Shutting out. Separating.

excoria'tion (Lat. *ex*=out and *corium*=the skin). A rubbing off of the skin.

ex'crement. Fecal matter.

excrementi'tious. Pertaining to, or of the nature of feces.

exces'cence (Lat. *excescere*=to grow out). An unnatural projection or growth upon a part.

excre'ta (Lat. *excernere*=to separate). Waste matter discharged from the body, as the feces, urine, perspiration.

excre'tion. (1) The act of throwing off waste matter from the body. (2) The matter excreted.

exfeta'tion. Ectopic gestation.

exfolia'tion (Lat. *ex*=out and *folium*=a leaf). To fall off in scales.

exhala'tion. A vapor or volatile substance given off from the body. The act of exhaling. Passing off as a vapor.

exhale' (Lat. *ex*=out and *halare*=to breathe). To breathe out. To give out in any way.

exhaust'. To drain, to empty. To wear out by exertion.

exhilarant *eg-zil'a-rant*. An agent that enlivens or elates.

exhume' (Lat. *ex*=out and *hume*=the ground). To remove a dead body from the ground after it has been buried.

ex'igent. Urgent.

exod'ic. Centrifugal. Passing from a center outward.

exogenet'ic (Gr. *exo*=without and *gennaō*=to produce). Due to some external cause not arising within the organism.

exogen'ic. Developed outside the body.

exophthal'mos, exophthal'mia (Gr. *ex*=out and *ophthalmos*=the eye). Abnormal protrusion of the eyeballs.

exosmo'sis. Osmosis from within outward.

exosto'sis. A bony growth projecting from the surface of a bone. **Dental e.**, an exostosis on a tooth.

exot'ic. Foreign.

exot'ospore. The pointed process of the malarial organism by which it enters the red blood-corpuscle.

expan'sion (Lat. *expandere*=to spread out). The act of expanding, diffusing, or spreading out. **Heat and cold in connection with e.**, matter is expanded by heat and it requires heat in order to expand. For the latter reason, the expansion of gases (these expanding much more rapidly and to a greater extent than other forms of matter) is a very effective source of cold; for instance, if air or other gas that has been compressed in a cylinder or tube is allowed to escape, it will in doing so expand and will take the heat that it requires for the process from the outer air or anything with which it comes in contact.

expec'torant. A drug or other agent which stimulates the secretory cells of the laryngeal and bronchial membranes. Also one which modifies the nature of the secretion or promotes its expulsion.

expectora'tion. The act of spitting up secretions from the mucous membrane of the respiratory tract. The matter expectorated.

ex'pedite. To facilitate. To hasten.

expedi'tious. Quick. Active.

exper'iment. A trial or test.

ex'pert. Having experience. Skilled.

ex'piate. To atone for.

expira'tion. (1) The act of breathing out. Expelling air from the lungs. (2) Death.

expire' (Lat. *ex*=out and *spirare*=to breathe). (1) To breathe out. (2) To die.

explora'tion. To search. To investigate.

explo'sion. Bursting with a loud report. Explosions are generally due to the expansion

of gases in a confined space. The expansion may be occasioned in many ways, *e. g.*, (1) The heating of steam or gas in a boiler, or other closed vessel. (2) Chemical reactions such as occur when hydrogen and oxygen unite or, as in the case of gunpowder, small quantities of solids or of liquids are suddenly converted into large quantities of gases which become greatly expanded by the heat generated during the chemical change.

explo'sives. Substances that will explode easily.

expres'sion. (1) The process or act of pressing out. (2) The removal of the stomach's contents, as after a test meal, through a stomach tube, by applying pressure over the region of the stomach and creating a vacuum in the tube.

expul'sive. Forcing out.

exsanguinate *ek-sang-win'-āt* (Lat. *ex*=out and *sanguinis*=blood). To make bloodless.

exsiccate *eks'-i-kāt*. To dry up.

exten'sion. The act of stretching. **Buck's e.**, an apparatus used to make traction on a fractured leg so as to keep the ends of the broken bone in apposition.

exten'sors. The muscles which cause extension or straightening of a limb.

exter'nal. On the surface of the body. **E. secretion**, a secretion that is discharged on the surface of the body—as the perspiration—or into a cavity—as the digestive juices.

extin'guish. To put out.

extirpa'tion. The complete removal of a part.

ex'tra. A prefix derived from

the Latin signifying outside of, beyond, in addition.

ex'tract (Lat. *ex*=out and *tra-here*=to draw). Solid or semi-solid preparations made by evaporating a solution of the drug.

extrac'tion. The process of drawing out. The process frequently consists in soaking the substance from which matter is to be extracted in a liquid in which the desired extract is soluble.

extrac'tive. An extract. A substance that has been extracted from another. **Nitrogenous e's**, simple, protein substances that result from the breaking down or oxidation of more complex protein bodies. They represent waste matter of protein catabolism. They constitute the main constituent of bouillon, beef tea, meat extracts, and the like. They have no direct nutritive value, but are of use as they stimulate the secretory gastric glands.

extra'neous. Foreign. Outside and not forming a natural or necessary part of a body.

extravasa'tion (Lat. *extra*=outside and *vas*=vessel). (1) The escape of blood or fluid from a vessel. (2) Fluid that has escaped from a vessel.

extrem'ity. (1) A limb. (2) An extreme point or end.

extrin'sic. (1) External. (2) Not contained within nor essential to an organ.

extrover'sion (Lat. *extra*=outside and *vertere*=to turn). Turning inside out.

ex'tubate. To remove a tube.

exu'berant (Lat. *exuberare*=very fruitful). Overflowing. Growing too freely.

ex'udate. The constituents of the blood which pass through the walls of the blood-vessels into the tissues when there is an inflammatory condition.

exuda'tion. The passage of fluid through the walls of the blood-vessels or through pores.

exude' (Lat. *ex* = out and *sudare* = to sweat). To discharge through pores, as perspiration.

exu'vium, pl. *exuviæ* (Lat. *exuere* = to strip). (1) A slough. (2) Cast off epidermis.

eye. The peripheral portion of the organ of vision. The human eye is a hollow, almost spherical, body about an inch in diameter. Its wall consists of three coats, the posterior $\frac{5}{8}$ of the outer one consists of a strong, opaque, fibrous membrane known as the *sclera*. The anterior $\frac{1}{8}$ of the outer coat is a thin transparent membrane known as the *cornea*. Within the sclera is the choroid coat, which consists almost entirely of small blood-vessels and pigment cells. It serves to supply the less vascular coats with nourishment and to make a *dark chamber* of the interior of the eye. Continuous with the choroid is a circle of muscular tissue—the *ciliary muscle*—and continuous with this muscle is the colored membrane called the *iris*, which hangs like a curtain behind the cornea. In the center of the iris is an opening—the *pupil*—through which the light enters the eye. The inner coat of the eye—the *retina*—consists principally of filaments of the optic nerve which, coming from the center of vision in the brain, pierce the orbit at the back of the eye and enters the latter. The retina may be likened to the sensitized plate of a

camera, as it is the part of the eye that is sensitive to light and receives the image of external objects. The cavity of the eye is divided into two chambers by a fibrous, exceedingly transparent substance—the *crystalline lens*—which is enclosed in a capsule and attached to processes on the inner surface of the ciliary muscle by means of the *suspensory ligament*, a strong, elastic membrane that is fused to the anterior surface of the capsule as well as to the ciliary process. The cavity in front of the lens—the *anterior chamber*—is filled with a watery fluid—the *aqueous humor*,—and the cavity behind the lens—the *posterior chamber*—with a transparent jelly-like substance—the *vitreous humor*. The cornea, crystalline lens, aqueous and vitreous humors, ciliary muscle, and suspensory ligament constitute what is known as the refractory apparatus of the eye.

F

F. (1) An abbreviation for Fahrenheit and fiat. (2) Chemical symbol for fluorin.

facial *fa'-shal*. Pertaining to the face.

facies *fa'-she-ez* (Lat. *face*). The face. The expression of the face.

facil'itate (Lat. *facilis* = easy). To make easy. To remove difficulties.

fac'tion. (1) A party. (2) Dissension.

facul'tative. (1) Having the power to do a thing. (2) Not obligatory. **F. aërobia**, bacteria which usually require air for their sustenance, but can survive without it. **F. an-**

aërobia, bacteria which thrive best without air, but can grow where it is present.

fac'ulty (Lat. *facilis* = easy). The power to do anything. Capacity for a function.

faint. Weak, feeble. Temporary loss of consciousness due to anemia of the brain.

Fallo'pian. An Italian anatomist who lived 1523-1562.

F. tubes, the two tubes which connect the ovaries and the uterus and serve as a pathway for the ova from the ovaries to the uterus.

far'ad. The standard electrical unit.

farad'ic. Induced electric current. Called after Michael Faraday, an English physicist (1791-1867). See Current and Induced.

faradiza'tion. The therapeutic use of induced currents.

fari'na. A powdered meal obtained from maize.

farina'ceous. Resembling flour or meal. Starchy.

far-sight. See Hypermetropia and Presbyopia.

fascia *fash'-e-ah* (Lat. *a band*). The broad bands or sheets of fibrous areolar tissue that hold the skin to the underlying tissue and also envelop many of the muscles both separating them and holding them together. **Palmar f.**, the thick tough fascia covering the palms of the hands. **Plantar f.**, that covering the soles of the feet.

fascicular *fas-ik'-u-lar* (Lat. *fasciculus* = a little bundle). Clustered together. Compact. In anatomy the term is more especially used in connection with nerve and muscular fibers.

fastig'iate. Pointed.

fastig'ium (Lat. *a peak*). (1) The highest point. (2) The time, in a febrile disease, during which the fever remains high.

fat. Adipose tissue. One of the connective tissues of the body. Fats consist of glycerin and fatty acids, every molecule of fat containing one molecule of glycerin and three of fatty acids. Fats are decomposed into these constituent parts in the process of digestion, and, outside the body, by exposure to the influence of superheated steam and by boiling with acids or alkalis. When an alkali is used the fatty acids combine with it to form soap.

fa'tal. Causing death.

fatigue'. A sense of weariness; thought to be due to (1) an accumulation in the body of what are known as *fatigue substances* or *toxins*, which result from the catabolic changes occurring as the result of body activity. (2) The using up of the energy-yielding material in the body.

fat'ty. Of the nature of fat. **F. acids**, monobasic acids, so called because they are constituents of fats. Some of the more common are stearic, oleic, palmitic, and butyric acids. The first three occur in the majority of fats; butyric is found principally in butter. **F. degeneration**, abnormal deposits of fatty matter in a tissue.

fauces *fau'-sēz*. The aperture between the mouth and the pharynx.

fau'cial. Pertaining to the fauces.

fa'vus (Lat. *honeycomb*). A contagious skin disease due to

infection by a parasitic fungus. It is characterized by the formation of yellowish, cup-shaped crusts, which usually occur over hair-follicles and when, as is usually the case, the disease affects the scalp there will be a loss of hair, and unless the condition is properly treated, there may be permanent baldness.

feb'rifuge (Lat. *febris* = fever and *fugare* = to dispel). A drug or other agent that reduces fever.

feb'ri'le. Pertaining, or due, to fever.

fe'cal fe'-kal. Consisting of feces.

feces fe'-sēz (Lat. *fecis* = dregs). The waste matter that is discharged from the intestines. It consists of imperfectly digested food material that has not been absorbed; substances resulting from the decomposition of food as indol, fatty acids, etc.; bile and other secretions; enzymes, bacteria; waste substances and salts that have been taken from the blood.

fecunda'tion. Fertilization. Impregnation.

fecun'dity. The power of producing young or of germinating. Fruitful.

Fehling's solution. A mixture of (1) copper sulphate and (2) Rochelle salts in a potassium hydroxid solution. Fehling's solution is reduced—*i. e.*, oxygen is taken away from it—by glucose and it is changed to cuprous oxid—a red insoluble substance.

fel (Lat. *bile*). **F. bovis**, ox-gall, the bile of the ox. It is used medicinally to increase the flow of bile and stimulate peristalsis. It is usually given in the form of an enema, about 15 grains of the powdered ox-

gall, or 2 drams of the liquid being added to the usual soap-suds enema.

fel'on. Inflammation and sup-puration of the terminal part of a finger.

fem'oral. Pertaining to the femur.

fe'mur. The thigh bone.

fen'es'tra (Lat. *window*). An opening. **F. ovalis**, the oval window between the middle and internal cavities of the ear. **F. rotunda**, the round window between the middle and internal portions of the ear.

fen'estrated. Containing one or more openings.

fen'nel. A drug derived from the seeds of an herb, the *Feniculum vulgare*. It is used as a carminative in flatulence and infantile colic. Dosage for adults: Fluid-extract, 5-20 minims; water, 1-4 drams.

fer'ment (Lat. *fermentum* = leaven). A substance, produced by living cells, which acts by catalysis, *i. e.*, hastens a chemical reaction, the catalyzer not being used up in the reaction. Examples of ferments are: (1) the enzymes that aid in the digestion of food, and the metabolism of food products in the tissues; (2) the ferments secreted by the yeast organism which convert starch into glucose and glucose into alcohol, acid, and carbon dioxid; (3) ferments secreted by bacteria which produce various forms of fermentation; (4) the diastase obtained from germinating barley grains which converts starch into sugar.

fermenta'tion. The cleavage changes produced in organic substances by ferments. **Acetic f.**, the conversion of weak

alcohol solutions into acetic acid. **Alcoholic f.**, the conversion of glucose into alcohol. **Ammoniacal f.**, the changing of urea into ammonia, nitrates, and carbon dioxid. **Diastatic f.**, the conversion of starch into sugar. **Lactic acid f.**, the souring of milk; this is brought about by the action of ferments produced both by yeast and by various bacteria on the lactose of the milk. **Viscous f.**, the formation of viscid substances in milk, urine, wine, etc., by ferments produced by various bacilli.

fer'ric. A salt or compound of iron. For medicines see Iron.

fer'rous. A salt or compound of iron. A ferrous salt will contain less iron than a ferric one.

fer'rum. Latin for iron.

fer'tile (Lat. *ferre*=to bear)
Productive. Having abundant resources.

fes'ter. Superficial suppuration.

fe'tal. Pertaining to a fetus.

feta'tion (Lat. *fetus*). The development of the fetus.
Pregnancy.

fe'tid (Lat. *fæteo*=to stink).
Having an offensive odor.

fe'tor. An offensive odor.

fe'tus. The name given to the young of viviparous animals while in the uterus, after the end of the third month of gestation, before that time it is called the *embryo*.

fe'ver. A condition associated with an increase in the temperature of the body and varying changes in its metabolic processes due to some disproportion between the production and loss of heat in the body. In the majority of fevers there is increased heat production, especially during

the chill which initiates so many infectious diseases, and a decrease in the amount of heat lost from the body; but in chronic wasting diseases the heat production tends to become limited, and when there is a tendency to collapse the heat production is abnormally low. In such cases the elevation in the body temperature is due entirely to diminished loss of heat from the body. The excessive heat production is due to acceleration of the oxidative processes as the result of the higher temperature of the body and of increased muscular movements—*e. g.*, those occasioned during a chill, and the increased rate of respiration, etc. The causes of the diminished loss of heat vary; usually the loss by radiation and conduction from the skin is especially limited. The reason for this is not always apparent, for though the amount of blood in the skin is sometimes increased, as can be seen by the heightened color, at other times the cutaneous blood-vessels are contracted and the blood supply in the skin thus lessened and, normally, the degree in which heat is lost by radiation depends upon the amount of blood that there is in the skin vessels. Loss of heat by evaporation is sometimes increased and sometimes lessened, there being sometimes an increase and sometimes a decrease in the amount of perspiration. The cause of defective heat regulation is not known, one theory is that the various nerve centers controlling heat regulation are in turn controlled by a special center—the *heat regulating center*—and that this

loses its normal degree of irritability when the blood contains poisons such as those elaborated by bacteria within the body, or those which result from defective digestion or metabolism. **Continued f.**, that in which the diurnal variation is slight; as, *e. g.*, in pneumonia. **Intermittent f.**, that in which the diurnal variation is very marked and the minimum temperature is normal or subnormal, *e. g.*, intermittent malarial fever. **Remittent f.**, that in which the diurnal variation is marked but the temperature remains above normal; *e. g.*, typhoid fever.

fi'at (Lat. *let there be made*). A term used in writing prescriptions to signify *prepare, make*.

fi'ber. A thread-like cell or structure.

fi'bril. A small fiber.

fi'brin. An insoluble protein substance derived from the soluble fibrinogen of the blood under the influence of thrombin, a ferment formed in the blood by the interaction of thrombokinase or thrombinogen (a substance liberated in the blood by the disintegration of leucocytes and blood-platelets) and calcium salts. Fibrin is essential for the clotting of blood and it is the principal constituent of the clot.

fibrino'gen. A globulin present in the blood plasma and lymph. See Fibrin.

fi'brinous. Of the nature of fibrin.

fi'broid (Lat. *fibra* = fiber and *Gr. eidos* = form). Of a fibrous structure. An innocent tumor composed of fibrous tissue.

fibro'ma. A fibroid tumor.

fi'brous. Composed of fibers.

fib'ula. The outer and smaller of the two bones of the leg. It articulates, at its upper extremity, with the tibia and, at its lower point, with the astragalus, one of the ankle bones.

fil'ament. A thread or fine fiber.

fi'laria. A species of parasitic thread-like worms.

filari'asis. A disease due to infection by the *Filaria bancroftii*. It is thought that this worm is transmitted from man to man by means of the mosquito. The embryos of the organism, when injected into an individual, take up their abode in some of the lymph vessels and block the passage of the lymph. The symptoms of the disease will depend upon the location of the affected vessels. There is likely to be a tumor-like swelling where the blocking occurs and, if it is the vessels connected with the bladder that are affected, they are likely to rupture into the bladder and the urine will then be white like milk. If the involved vessels carry the return flow of lymph from the legs, the condition known as *elephantiasis* will result. Diagnosis is made by finding the embryos produced by the female parasite in the blood. The blood for examination is obtained about midnight, as during the daytime, while the patient is active, the organisms remain in the more deeply seated vessels. The usual treatment consists in an operation for the removal of the worms blocking the lymph vessels.

fi'liform (Lat. *filum* = a thread and *forma* = form). Thread-like, slender.

fil'let. A band.

fil'ter. (1) The purifying of liquids by passing them through a filter. (2) A vessel or substance which will allow liquids, but few solids, to pass through. Ordinary filters cannot be relied upon to prevent the passage of such minute solids as bacteria, therefore, filtered water is not as pure as distilled water. Charcoal, especially that derived from the destructive distillation of bones, is often used for filters, for charcoal is a great absorber. **F. beds,** ponds, or reservoirs whose bottom is a filter and connected with pipes or drains leading into a central conduct. **Berkfeld f.,** a filter consisting of diatomaceous earth. **Pasteur-Chamberland f.,** a filter consisting of a tube of unglazed porcelain through which the liquid is forced either by pressure or vacuum exhaustion.

fil'trate. A liquid that has been filtered.

filtra'tion. The act or process of filtering.

fim'bria, pl. **fimbriæ** (Lat. *a fringe*). A fringe-like process, especially the fimbriæ surrounding the Fallopian tubes.

fim'briated. Fringed.

Fin'sen light. See Light.

fis'sure. A cleft or groove.

fis'tula (Lat. *a pipe*). A tube-like opening in the body occurring as the result of an inflammatory or ulcerative process or of traumatism.

fixa'tion. The act of making firm or causing to adhere.

fl. The chemical symbol for the element fluorin.

flaccid flak'-sid. Soft, relaxed.

flagel'la, pl. of *flagellum* (Lat. *whips*). The whip-like processes with which certain cells—as the ameba—are provided.

fla'gellated. Provided with flagella.

flagel'lum. See Flagella.

flame. Gas or vapor that has been raised to a sufficiently high temperature to become luminous. The brightness of a flame is increased by the presence of solid matter that will become incandescent; *e. g.,* the gas-burners of a cooking-stove are provided with sufficient air holes to allow the passage of enough air to cause the combustion of all the carbon in the gas, consequently the flame is intensely hot but not very luminous; the burner of the gas jet for illuminating purposes has not these air holes, consequently a great deal of the carbon is not consumed, as is shown by the soot—carbon—deposited on a pan held over such a flame, but it is much more luminous than the first flame since the carbon becomes so highly heated that it is rendered incandescent. **F. from liquids and solids,** many liquids and solids burn with a flame because the heat of combustion vaporizes them.

flash point. The temperature at which a substance will burst into flame.

flat-foot. An abnormal condition of the foot in which the sole and arch are flattened.

flat'ulence (Lat. *flatus* = a blowing). Distention of the stomach or intestines with air or gas.

flat'ulent. Capable of generating gases in the alimentary canal.

fla'tus. Air or gas in the stomach or intestines.

fla'vor. That quality of any substance which affects the taste.

flax'seed. The dried seeds of the flax. They contain a fixed oil and a quantity of mucilage. The whole seeds are used for making a demulcent drink known as flaxseed tea—4 ounces of the seeds to one quart of water are used, this is boiled for half an hour and then strained, sweetened, and flavored with lemon juice. The powdered seed or meal is used for poultices.

flesh. The soft tissues of the body.

Flet'cherism. The very thorough mastication of food. So called after Horace Fletcher, an American dietitian.

flex. To bend.

flex'ible. (Lat. *flectere* = to bend). Easily bent. Not stiff.

flex'ion. The act of bending or state of being bent.

flex'or. A muscle that causes flexion.

floc'cila'tion. Carphology; *e. g.*, a constant picking at the bedclothes by a delirious patient. This is sometimes seen in typhoid and other fevers and is an unfavorable symptom.

floc'culence. Flakiness. Woolly.

floc'culent. Containing shreds or flakes.

floc'cus. A tuft of hair.

flu'id. A gas or liquid.

fluid-extract. A concentrated tincture. A concentrated alcoholic extract of a drug of definite strength. Each c. c. of a fluid-extract contains one gram of the drug, or each minim, one grain.

flake. A parasitic, unsegmented worm.

fluores'cence. The power possessed by certain bodies of changing the wave length of rays of light, falling upon them (see Color) so that they radiate a gleam of light that is different in color. Thus when violet or ultra-violet rays fall upon sulphate of quinine solution a pale blue light is emitted and fluorescein and fluorite change violet to a beautiful green. This property was first observed in the latter mineral, hence the term fluorescence.

fluores'cent. Pertaining to fluorescence. **F. screen,** a screen made of some material that can be easily penetrated by the X-ray, the inner side of which is coated with tungstate of calcium or other fluorescent crystals which become luminous under the influence of the X-ray and give shadow pictures of objects that obstruct the rays. See Ray.

flu'orin. A gaseous element that somewhat resembles chlorine. It is obtained principally from the mineral fluor-spar.

flu'oroscope. A device, invented by Thomas A. Edison, for holding a fluorescent screen for X-ray examinations. It



Fluoroscope

consists of a tapering light-tight box, one end of which is provided with a cuff of soft material, which will fit closely around the face of the examiner, and the other, with a fluorescent screen.

flush. A sudden flow of blood to the face. A red color of the skin due to dilatation of the skin capillaries and consequent inflow of blood.

flux (Lat. *fluxus*=a flowing).

(1) The act of flowing. (2) An abnormal or excessive discharge of matter from the body, as in diarrhea. (3) To melt, to fuse.

fly-blister. See Blister and Cantharides.

fo'cal. (1) Pertaining to a focus. (2) A central point from which any influence proceeds. **F. distance,** the distance between the center of a lens or a mirror and its focus.

fo'cus pl. foci (Lat. *a fireplace*).

(1) The center of a disease or other morbid process. (2) The point at which waves of sound or rays of light meet. **Conjugate f.,** two foci so placed that if rays of light reflected from one strike, and are reflected from, a concave mirror they will meet in the other. **Principal f.,** the point at which light rays that were parallel before refraction are brought together. See Refraction.

fol'licle (Lat. *folliculus*=little bag). A minute secretory gland or sac.

folli'cular. Pertaining to a follicle or follicles.

fomenta'tions. Hot applications applied to the body to produce counter-irritation.

fo'mes pl. fomites. Matter

that absorbs, holds, and transmits a contagium.

fontanel' (Fr. *fontanelle*=little fountain). The unossified spaces between the bone of the skull at the junction of: (1) the two parietal and the frontal bones; (2) of the two parietal and the occipital bones; (3) of the lower corners of each of the parietal bones and the upper ones of the temporal bones.

food. Any substance which, when taken into the body, will afford tissue building material or heat and energy.

fora'men pl. foramina. A hole or aperture.

force. That which produces motion or pressure.

for'ceps. A two-bladed instrument used for pulling, holding, compressing, etc.

forearm. That part of the arm between the elbow and the wrist.

fore'skin. The prepuce, *i. e.*, the skin which covers the glans penis.

formaldehyd *for-mal'-de-hid*, **methylal'dehyd.** An aldehyd produced by the incomplete oxidation of methyl (wood) alcohol. There are at least three forms of the aldehyd: viz.: (1) formaldehyd or formic aldehyd, which is a gas at ordinary temperature; (2) paraform, a white substance from which formaldehyd can be liberated by the application of heat. Every molecule of paraform contains two molecules of formaldehyd; (3) trioxymethylene, a white powder that is formed by the chemical union of three molecules of formaldehyd. Formaldehyd is one of the most commonly used gaseous dis-

infectants; it may be obtained by (1) burning wood alcohol, in a specially constructed lamp, (2) by heating paraform or trioxymethylene or from the solution of the gas formalin. Common methods of liberating formaldehyd gas from formalin are: boiling formalin solution; adding formalin solution to permanganate of potash (using 300 grams of crystals of permanganate and half a liter of 40 per cent. formalin for a moderate sized room); adding formalin solution, $\frac{1}{2}$ liter, to quicklime, about 1 $\frac{1}{2}$ pounds.

for'malin. A solution of formaldehyd gas. The gas is soluble in water up to 40 per cent. Formalin is used as a disinfectant and antiseptic; a 4 per cent. solution of the 40 per cent. will kill non-spore-forming organisms in ten minutes and spores in one hour.

forma'mid. An amid of formic acid. It is a colorless oily liquid, the chemical composition of which is similar to urea.

for'mic acid (Lat. *formica* = ant). (CH_2O_2). A colorless, irritant liquid that can be obtained from various sources, *e. g.*, by the oxidation of formaldehyd; from oxalic acid; from the juice of certain plants as the stinging nettle; and by the distillation of red ants. The inflammation caused by the sting of the bee is due to formic acid.

formol. A solution of formaldehyd in wood alcohol and water.

for'mula. (1) A prescription or recipe. (2) The description of a method. (3) The chemical composition of a substance shown by symbols.

for'nix (Lat. *an arch*). The term is applied to various parts of the body that are shaped like a vault or arch.

fos'sa (Lat. *a ditch*). A depression or hollow.

fourchet *foor-shet'* (Fr. *fourchette* = a fork). A transverse fold of mucous membrane at the posterior junction of the labia majora.

fo'vea (Lat. *a pit*). A depression. **F. centralis**, a depression in the center of the macula lutea—yellow spot of the retina. It is the part of the retina that is most sensitive to light.

Fowler's Solution. See Arsenic.

frac'ture. The act of breaking by violence. A break in a bone. **Colles's f.**, fracture of the lower end of the radius. **Comminuted f.**, a fracture in which the bone is broken into several pieces, the fractured parts communicating with each other. **Complete f.**, a fracture in which the bone is severed through its entire thickness. **Complicated f.**, a break in the bone complicated by injury to surrounding parts. **Compound f.**, one in which an open wound leads from the surface of the body to the broken bone. **Greenstick f.**, or incomplete f., one in which the bone is bent or broken, but not completely severed. It often occurs in children. **Multiple f.**, one in which the bone is broken in several places.

freck'le. A small, irregular, brownish spot due to a deposition of pigment in the skin. Exposure to the sun's rays is the usual exciting cause.

free'zing-point. The degree at which freezing takes place.

Water freezes at 32° F. and 0°C.

frem'itus. A vibration perceived on palpation or auscultation.

fren'zy. Maniacal excitement.

fri'able. Capable of being easily pulverized; *i. e.*, reduced to powder.

fric'tion (Lat. *fricare*=to rub). The rubbing of one body upon or against another; the larger, heavier, or rougher the surfaces of the bodies, the greater the friction. The qualities of bodies which afford friction prevent their being too easily moved. Friction generates heat and is one of the principal sources of electricity; it is used in massage to improve the circulation in the part massaged and to hasten the absorption of exudations. **F. murmur**, a sound heard on auscultation when two roughened serous membranes are rubbing against each other, as in pleurisy and pericarditis.

fron'tal. Situated in front. **F. bone**, the bone of the forehead. **F. sinuses**, cavities in the frontal bone situated one over each orbit.

fronta'lis. The muscle covering the front of the skull; it is continuous with the occipital muscle.

fruc'tose. Levulose or fruit sugar. It is contained in all sweet fruit.

fuchsin fūk'-sin. A red anilin dye much used as a stain in microscopic work.

fu'gitive. Transient. Wandering.

ful'gurant (Lat. *fulgur*=lightning). Transient. Sudden. Severe.

ful'minant. Sudden, severe.

fumiga'tion. Exposure to the fumes of disinfectant gases.

fu'ming. Smoking.

func'tion. The natural action of a part or organ.

func'tional. Pertaining to or affecting a function. **F. disease**, a disturbance of the function of an organ without any discoverable disease of the organ.

fun'dament. (1) The foundation or base. (2) The anus, the breech.

fundamen'tal. Pertaining to the foundation.

fun'dus. The base of a cone-shaped organ, as the uterus.

fun'gus pl. fungi (Lat. *a mushroom*). (1) A term used for any one of a class of plants of a low order of development as mushrooms, molds, etc. (2) A morbid growth resembling a fungus.

funi'cular. Pertaining to a funiculus.

funiculi'tis. Inflammation of the spermatic cord.

funic'ulus (Lat. *a small cord*). A cord or cord-like bundle, as the spermatic and umbilical cords, a bundle of nerve-fibers held together by a sheath.

fu'nis (Lat. *cord*). The umbilical cord.

fur'row. A groove.

fu'runcle. A boil, *i. e.*, an acute circumscribed inflammation of a sebaceous gland or hair-follicle. Pus cocci are the exciting cause; uncleanness, poor circulation, and anemia, the more common predisposing causes.

furunculo'sis. The appearance of furuncles in crops. The conditions of the system which

favors the appearance of furuncles.

fu'sel oil. A poisonous oily substance formed during the fermentation of corn, potatoes and the juice of grapes. It is separated in the last part of the process of the distillation of the spirit produced by the fermentation.

fu'sible (Lat. *fusio* = a melting). That can be melted.

fu'siform. Spindle-shaped; *i. e.*, tapering at both ends.

fu'sion. (1) The act of melting. (2) The blending or union of melted substances. (3) The abnormal growing together of tissues or adjacent parts of the body.

G

G. An abbreviation for gram.

gag. (1) A device for holding the mouth open. (2) To retch as the result of nausea.

gait. Manner of walking.

galact'agogue (Gr. *galaktos* = milk and *ago* = to induce). A drug or other agent that increases the secretion or flow of milk.

galac'tase. The enzyme contained in the intestinal juices that aids in the change of milk sugar to galactose.

galactom'eter. An instrument for measuring the specific gravity of milk.

galac'tose. A sugar of the nature of glucose derived from lactose, *i. e.*, milk sugar.

galactosu'ria. The presence of galactose in the urine.

Ga'len. A celebrated Greek physician who lived about 130-200 A.D.

gall. The bile. **G. bladder,** a pear-shaped sac, about 4 inches in length and 1 inch in

breadth at its widest part, situated in a groove in the under surface of the liver. **G. nut,** a morbid growth of a leaf or leaf-bud of a plant due to infection by certain insects. Gall-nuts contain tannin and are sometimes used as substitutes for that drug.

gal'lic acid. An acid obtained from gall-nuts, several plants, and tannin. It is sometimes used in medicine as a substitute for tannin.

gal'lon. (Lat. *congius*). 4 quarts.

galvan'ic. Named for or discovered by Aloysius Galvani, an Italian physicist who lived 1737-1791. **G. battery,** one that affords a chemically produced current and consists of a number of connected galvanic cells. **G. cell,** a jar containing two metals that will serve as electrodes, *e. g.*, copper and zinc, and an electrolyte, *e. g.*, sulphuric acid. (See Anion and Electrolyte.) **G. electricity,** an uninterrupted current of electricity derived from a galvanic battery.

gal'vanize. (1) The therapeutic use of galvanic electricity. (2) To plate a metal by means of galvanism, *e. g.*, to plate articles with silver, the object to be plated is made to serve as a cathode and a bar of silver is used as an anode. (See Anion.) When a current is passed through the electrolyte, silver dissolves from the anode and deposits on the cathode in a close-adhering layer. The process is known as *electroplating*.

galvanized iron. Iron covered with a film of zinc, to protect it from rust. Iron is usually galvanized by dipping it into

a bath of melted zinc, but electrical methods are sometimes used.

gang'liform. Shaped like a ganglion.

gang'lion, pl. **ganglia** (Gr. *ganglion* = a knot). (1) Any of the masses of gray nervous matter that act as a nerve-center, receiving and discharging impulses. (2) A cystic tumor on a tendon. (3) An enlarged lymphatic gland.

ganglion'ic. Pertaining to a ganglion.

gangli'tis, ganglionitis. Inflammation of a ganglion.

gang'rene. The putrefaction of necrotic — dead — tissues. Common causes are: (1) Lack of nutrition on account of interference with the blood-supply either from pressure on an important artery, clogging of a main artery by a thrombus, or constriction of the arteries as in arteriosclerosis. (2) Destruction of tissue as by traumatism, fire, strong acids, etc. **Carbolic g.**, that caused by the use of carbolic acid dressings. **Diabetic g.**, that complicating diabetes, it is due in part to the excessive amount of glucose in the tissues, and, in part, to the diminished blood-supply resulting from arteriosclerosis, the latter condition being one of the common results of diabetes. **Dry, or senile g.**, that produced by a gradual diminution of the supply of blood. It usually occurs in old people as the result of a weak heart or diseased blood-vessels. **Moist g.**, a form of gangrene associated with a profuse, offensive discharge. It is usually the result of interference with the circulation, as by the ligation of an

artery, or of extensive contusions, lacerations, burns, and the like.

gar'gle. The rinsing of the throat and mouth. A solution used for the purpose.

gas. An elastic fluid. One of the three states in which matter exists. About ten of the elements are gaseous at ordinary temperature, but they can all be condensed into liquids by cold and pressure. **Acetylene g.**, a colorless gas, usually prepared from calcium carbide a substance formed when coal and lime are heated together in an electric furnace. When this gas is passed through burners so constructed as to secure a large amount of air, it burns with a brilliant white light, and hence is used as an illuminant. **G. bacillus**, an organism that causes a rare, but very fatal infection of wound, viz., *emphysematus gangrene*. The germ is widely distributed, it occurs in the intestines of the higher animals and in the soil and has been found in dust, sewage, river-water and milk. **Coal g.**, that produced by heating soft or bituminous coal in large retorts out of contact with the air. It is used for fuel and lighting. (For difference in gas used for these two purposes see Flame.) **G. liquor**, an ammoniacal liquid extracted from coal in the distillation of gas. **Marsh g.**, methane; this gas is formed when vegetable matter decays under water and when such organic matter as coal or wood is heated in closed vessels. It is thus one of the principal constituents of natural and coal gases. Bubbles produced by this gas are seen in

pools where plants are decaying. Methane collects in mines and is responsible for a large number of the explosions that occur, since, when mixed with air, it is very inflammable and when heated expands greatly. **Natural g.**, that formed in the earth. Its composition varies, but methane is always its principal constituent. It is used for illuminating and heating. **Water g.**, a mixture of carbon monoxid and hydrogen. It is made by passing steam over hot anthracite coal. It is a non-luminous, odorless, very poisonous gas. It is used for fuel, but can be used for illuminating, only in combination with other gases such as those derived from petroleum. Its use is attended with risk for, being odorless, a leak in the pipes holding it may not be detected.

gas'eous. Of the nature of gas.

gas'olene. A volatile liquid distilled from petroleum. It is easily volatilized at a low temperature and the resulting vapor becomes explosive when it is mixed with a large quantity of air. Gasolene is used for fuel and as a light motor power. A stove, in the tank of which there has been a small amount of gasolene for a long time, should not be lighted until the tank has been filled, since there is likely to be sufficient air in a partially empty tank to cause an explosive mixture.

gasteral'gia, gastralgia. Pain in the stomach.

gas'terasthe'nia, gastrasthenia. Weakness of the stomach.

gastrec'tomy. Removal of any part of the stomach.

gas'tric (Gr. *gaster* = the stom-

ach). Pertaining to the stomach.

gastrit'is. Inflammation of the stomach. Acute forms of the disturbance are usually due to the use of improper food, the eating of food too quickly, eating too much, or to other diseases. The membrane lining the stomach becomes congested, its glands secrete but little gastric juice, and there is a decrease in the amount of hydrochloric acid in the juice, but a great increase in the amount of mucus. **Chronic g.**, this is usually the result of repeated attacks of acute g., the too free use of alcoholic beverages, or nervous troubles.

gas'tro (Gr. *gaster* = the stomach) A prefix used to denote some connection with the stomach.

gastrocol'ic. Pertaining to the stomach and colon.

gastrocolos'tomy. An operation for the making of a fistula between the stomach and colon.

gastrodi'aphane. An electrical device for illuminating the interior of the stomach.

gastroenteri'tis. Inflammation of the stomach and intestines.

gastroenterot'omy. An incision of the intestine made through the abdominal wall.

gastrohepat'ic. Pertaining to the stomach and liver.

gastropto'sis. Prolapse of the intestine.

gastror'raphy (Gr. *gaster* = the stomach and *rhapto* = to sew). Suture of a wound in the stomach.

gastrorrh'e'a. Excessive secretion in the stomach.

gas'troscope. An instrument used for viewing the interior of the stomach.

gastrosple'nic. Pertaining to the stomach and spleen.

gastrosteno'sis. Abnormal contraction of the stomach.

gastrostomo'sis, gastrostomy (Gr. *gaster*=stomach and *stoma*=a mouth). The making of a gastric fistula.

gastrot'omy. Incision of the abdomen or stomach.

gaulthe'ria. An oil obtained from the leaves of the tea-berry, checkerberry, or winter-green. It contains salicylic acid and is used externally as a local antiseptic and an anhydrotic and internally as an antirheumatic. Dose, 5-15 grains.

gavage gav-ahzh'. Feeding through a tube inserted in the esophagus through either the mouth or nose. In the latter case it is called *nasal-gavage*.

gel'atin (Lat. *gelatus*=frozen). A simple nitrogenous substance obtained by boiling certain animal tissues, as cartilage, bone, skin. It has the same food value as the carbohydrates, but, though it contains nitrogen, it cannot be used as a substitute for protein food, since there are certain principles lacking in it that are essential for tissue building.

gelat'inize. To convert into gelatin.

gelat'inous. Like jelly.

gel'semin. An alkaloid of gelsemium. Dose, $\frac{1}{120}$ - $\frac{1}{80}$ grain.

gelse'mium. A drug derived from the roots of the yellow jasmine. It is used as an antispasmodic, analgesic, and mydriatic. Dosage: fluid-extract, 2-5 minims; tincture, 10-30 minims.

gemel'lus (Lat. *twin*). In pairs, double.

gem'inate. To occur in pairs.

gemma'tion (Lat. *gemma*=a bud). Reproduction by budding. The act of budding.

gem'mule. A bud.

gen'er'al. Not local. Affecting many parts. Usual.

gen'erant (Lat. *generere*=to beget). Producing.

gen'erate. To give life to. To produce.

genera'tion. The act of producing or giving life to. An age.

gener'ic. Of a class or species.

gen'esis (Gr. *source, birth*). Production, beginning, development.

genet'ic. (1) Pertaining to reproduction or origin. (2) Congenital. (3) Inherited.

genic'ulate (Lat. *genu*=a knee). Bent. Jointed like a knee.

genioglos'sus (Gr. *geneion*=the chin and *glossa*=the tongue). A muscle that is attached to both chin and tongue. It protrudes, retracts, and depresses the tongue.

gen'ital (Lat. *genitalis*=generative). Pertaining to generation.

genital'ia. The organs of generation.

gen'ito-u'rinary. Pertaining to the reproductive and urinary organs.

gentian jen'-she-an. A drug obtained from the root of the *G. lutea* and used as a stomachic tonic. Dosage: fluid-extract, 10-30 minims; tincture, 1-4 drams.

genu je'-nu (Lat. *genu*=knee). The knee or a knee-like structure.

genupec'toral. Pertaining to the knees and chest.

germ (Lat. *germen* = a sprout).

(1) That from which anything springs, as an ovum. (2) A microbe. (3) A spore. **G. plasm**, cell-protoplasm. **G. theory**, the theory that every infectious disease is due to a special microorganism.

germ'icide. An agent that will destroy germs.

germ'inal. Pertaining to, or like, a germ.

gesta'tion. See Pregnancy.

gigan'tism, **acrome'gally**. Abnormally large. Excessive growth of the human body is thought to be sometimes due to some abnormal condition of the pituitary body.

gigan'toblast. A large, nucleated red blood corpuscle.

gigan'tocyte. A large non-nuclear red blood corpuscle.

gill. One-fourth of a pint.

gin. An alcoholic spirit distilled from malt and flavored with juniper berries.

gin'ger. The dried root of the *Zingiber officinale*. The active principles are an aromatic resin and a volatile oil. It is used for flavoring and, medicinally, as a carminative and counterirritant. Dosage: fluid-extract, 5-10 minims; tincture, 30-60 minims.

gingiva *jin-ji'-va* (Lat.). The gum.

gingivi'tis. Inflammation of the gum or gums.

ginglymus *ging-lī'-mus* (Gr. *ginglymas* = a hinge). A hinge joint.

gir'dle. A belt. **Pelvic g.**, the bones of the pelvis. **Shoulder g.**, the clavicles and scapulas.

gla'cial. Resembling ice. Crystalline.

gladio'lus. (Lat. *a small sword*).

The central portion of the sternum.

glair. White of egg. Any viscous transparent substance.

gland (Lat. *glans* = a cord, a nut).

An organ which has the power of abstracting specific material from the blood flowing through its substance and, in the case of certain glands, of transforming this material into matter of a different nature.

gland'ular. Of the nature of, or pertaining to, glands.

glans. (1) Lat. for gland. (2) The small bulb-formed extremity of the clitoris and penis.

gla'ry. Covered with or resembling white of egg.

Glauber's Salt. See Sodium sulphate.

glaucoma *glau-ko'-mah* (Gr. *glaukos* = gray and *omma* = the eye). A disease of the eye characterized by hardening of the eyeball. The intense pain and dimness of vision or loss of sight associated with the condition are due to the hardening; the direct cause of the latter is not known; predisposing causes are old age, arteriosclerosis, and myopia.

gleet. A form of chronic gonorrheal urethritis.

gle'noid (Gr. *glēnē* = cavity and *eidos* = form). A cavity that is shallow, as opposed to cotyloid or deep. **G. cavity**, a cavity in the scapula into which the head of the humerus fits.

glia. The neuroglia.

gli'adin. A protein substance which constitutes a varying, but large, proportion of the gluten of wheat flour. See Gluten.

glío'ma (Gr. *glia* = glue). A tumor that occurs in nervous tissue. It may be either innocent or malignant.

glo'bín. A protein substance derived from hemoglobin.

glob'ular (Lat. *globus* = a ball or sphere). Like a globe or globule.

glob'ule. (1) A small ball-like mass. (2) A corpuscle.

glob'ulin. A class of protein substances that are characterized by being insoluble in water, alcohol, and saturated salt solutions; soluble in dilute acids, alkalies, and neutral salt solutions, and coagulated by heat.

glo'bus (Lat. *a ball*). **G. hystericus**, a sensation as of a ball in the throat. It is usually caused by spasmodic contraction of the glottis as the result of nervousness.

glomer'ulus, pl. **glomeruli** (Lat. *glomus* = a ball). A small coil of capillary blood-vessels contained in each of the Malpighian capsules of the uriniferous tubules of the kidneys.

glo'nin. See Nitroglycerin.

glos'sal (Gr. *glossa* = the tongue). Pertaining to the tongue.

glossi'tis. Inflammation of the tongue.

glot'tis, rima glottis. The aperture between the vocal cords which constitutes the entrance to the trachea and through which all air passes into and from the lungs.

glu'cose, dextrose (Gr. *glukus* = sweet). Chem. formula, $C_6H_{12}O_6$. A sweet, soluble, easily fermented form of sugar that turns the plane of polarized light to the right. It is found in sweet fruit and honey and can be prepared by boiling starch or cane sugar with

acid and by subjecting starch to the action of yeast, diastase, and similar ferments. It is formed in the body as the result of the digestion of starches and sugars. After digestion, it is absorbed by the blood and carried by the portal vein to the liver where, by the influence of certain enzymes, molecules of glucose combine chemically, with a loss of water, and the glucose is thus changed to glycogen. This is stored in the liver and muscles, being carried to the latter by the blood. Later, as substance for oxidation is necessary, the glycogen is, under the influence of ferments, reconverted into glucose. The regulation of the conversion of glucose to glycogen, and *vice versa*, is thought to be controlled by the nervous system and blood. Normally, the blood constantly contains about 0.1 to 0.15 per cent. glucose. In health, this quantity may be somewhat increased for a short time after the eating of a large amount of sugar; there may be a temporary increase also during certain diseases, but a permanent increase is due to a decrease in the amount of glucose oxidized in the tissues and constitutes the condition known as diabetes. When glucose is oxidized in the body, heat results and the glucose is converted into carbon dioxid and water and leaves the body as such.

glucosu'ria. The presence of glucose in the urine.

glute'al. Pertaining to the buttocks.

glute'i, sing. **gluteus.** The muscles of the buttocks.

glu'ten. A gum-like protein substance obtained from many cereals. It consists princi-

pally of gliadin and glutenin. The proportions of these two substances differ in different grains. In the gluten of wheat there is sometimes twice as much gliadin as glutenin, but in other cereals the proportion of gliadin is much less; consequently, as it is to the gliadin that gluten owes its sticky and elastic properties, wheat yields the best flour for breads, etc.

glu'tenin. A protein which is one of the constituents of gluten.

glu'tinous. Like gluten. Sticky.

glyc'erid. A compound of glycerin and an acid.

glyc'erin, glycerol. An oily, colorless liquid with a sweetish taste. Its chemical composition is that of an alcohol. It is formed from fats in the manufacture of soaps, and it is separated from fats in process of digestion—fats consisting of fatty acids and glycerin. It is used in the manufacture of nitroglycerin and dynamite. It has a strong affinity for water and therefore, if taken internally, will abstract water from the tissues and act as a laxative, since the water will soften the feces in the large intestine. Glycerin is used as a substitute for sugar in diabetes, and externally as an emollient.

glyc'erite. A mixture of glycerin and some drug.

glyc'erol. Glycerin.

gly'co-. A prefix signifying sugar.

glyco'gen. Animal starch; the insoluble carbohydrate into which glucose is converted in the liver. See Glucose.

glycoly'tic ferment. An enzyme that hastens the decomposition of glucose.

glycyrrhiza glis-er-i'-zah (Gr. *glukus* = sweet and *rhiza* = a root).

The root of the licorice plant.

Pulvis g. compositus, or **compound licorice powder**, a laxative mixture consisting of senna, licorice-root, fennel, sugar, and sulphur. Dose, 1-4 drams.

goi'ter. An enlargement of the thyroid gland in which the new tissue is not thyroid tissue. The symptoms produced are due to pressure on the trachea, blood-vessels, and nerves, and will depend upon the degree and location of the pressure. **Exophthalmic g.**, an enlargement of the thyroid gland in which there is an increase of the thyroid tissue. The symptoms are due to excess thyroid secretion, which over-stimulates the nervous system. The more pronounced ones are, exceeding nervousness, rapid pulse, prominent eyes (*exophthalmos*).

gold cure. Treatment with gold chlorid for the cure of alcohol and opium habits.

gonarthri'tis (Gr. *gonu* = the knee *arthron* = a joint and *itis* = inflammation). Inflammation of a knee joint.

gon'ocele (Gr. *gonu* = the knee and *kele* = a tumor). Synovitis of the knee.

gonococ'cus. The germ which causes gonorrhea.

gonorrhe'a. An infectious, catarrhal inflammation of the mucous membrane of the genito-urinary organs. It is caused by the gonococcus. Common results of the disease are: Gleet, stricture of the urethra, prostatitis, and, in women, pyosalpinx and other serious inflammations of the organs of generation. The germ may remain in the

system long after local conditions have been relieved; some authorities consider that it can never be eradicated and, in such case, the individual will be always a source of danger. The germ may invade the blood and organs and give rise to abscesses, endocarditis, and various other serious diseases.

gonorrhœ'al. Pertaining to, or of the nature of, gonorrhea. **G. ophthalmia**, a severe, purulent conjunctivitis resulting from infection by the gonococcus. When occurring in the new-born, it is called *ophthalmia neonatorum*. This is the cause of more than half the cases of blindness of infants.

gorge. To swallow greedily. To eat too much.

gouge. A kind of chisel used to cut out pieces of bone or hardened tissue.

gout *gowt*. A disturbance of metabolism characterized by the accumulation of uric acid in the system, attacks of inflammation of the joints, those of the big toes being most frequently involved, and the gradual depositing of a chalk-like substance around the joints. Arteriosclerosis and nephritis are common complications. The prophylactic treatment consists in keeping the excretory organs sufficiently active, limiting the amount of food to a quantity necessary for the body's nourishment, avoiding alcoholic liquors, red meats, and sugars. A great deal of water should be drunk.

grac'ilis (Lat. *slender*). One of the muscles on the inner side of the thigh; it flexes the leg and rotates it inward.

Graf'fian follicle. One of the small sacs or vesicles of the ovary which hold the ova.

graft. A substance inserted or incorporated into something to which it did not originally belong; *e. g.*, a piece of skin or other tissue that has been taken from some part of the body, or another person's body, to supply that lost by traumatism or disease.

grain. (1) A seed of a cereal plant. (2) The unit of weight in the troy and avoirdupois systems. It is, approximately, $\frac{1}{16}$ of a gram.

gram, gramme. The unit of weight in the metric system. It is the weight of 1 c. c. of distilled water at 4° C. It is equal to 15½ grains.

gran'ular. Containing granules.

granula'tions. Small, rounded masses of tissue that grow in open wounds; each individual granulation consists of newly formed capillary sprouts surrounded by new connective tissue cells. The capillaries and cells of adjacent granulations gradually unite and thus new tissue is formed.

gran'ule. A grain. A small mass.

granulo'ma. A tumor composed of granulating tissue.

gran'ulose. A ferment, thought to exist in some plants, which changes starch to dextrin and maltose.

gran'um. Latin for grain.

graph'ite. A form of carbon; also a compound of carbon with some other mineral, as iron, silica, or lime. It is commonly, though erroneously, known as *black lead*. It is used in the making of *lead pencils*.

grati'na. The friction sound produced when rough surfaces move upon each other.

Graves' Disease. Exophthalmic goiter. See Goiter.

gravid. Pregnant.

gravita'tion. The natural force that tends to draw bodies to each other.

gravity. Weight. **Specific g.,** the weight of a substance as compared with that of another substance which is taken as a standard. Distilled water is the standard usually employed for liquids.

gravim'eter. An instrument used for determining specific gravities.

gray matter. The part of tissue composed of the nerve cell-bodies, dendrites, and beginning of the neuraxones. It is found in brain, spinal cord, and sympathetic ganglia. It is the part of the nervous system in which impulses are interpreted and transferred from one kind of nerve fiber to another—as from a sensory fiber to a motor.

grin'ders. The molar teeth.

grip, la grippe. See Influenza.

gripe. A spasmodic pain in the intestines.

groin. The depression between the abdomen and the thigh.

groove. A narrow, shallow depression.

guiacol gwi'-ak-ol. A colorless oily substance obtained from the creosote of beechwood tar. It is sometimes used as an internal antiseptic in tuberculosis. Dose, 1-10 minims, given in capsules or very well diluted. It is used externally in combination with glycerin as a counterirritant. Usually, the mixture is painted over the

skin and the part covered with cotton-batting or soft flannel.

gul'let. The esophagus.

gum. (1) A viscid substance found in certain plants. Some gums are used in medicine for suspending powders that are not very soluble in a liquid. Also they are used as demulcents to allay irritation of the mucous membranes. (2) The soft covering of the alveolar process of a jaw.

gum'ma, pl. gummata. A soft tumor. Gummata occur most frequently as the result of syphilitic poisoning.

gur'gling. A bubbling sound caused by air passing through liquids.

gus'tatory (Lat. *gustare* = to taste). Pertaining to the sense of taste.

gut. The intestine. **Catgut,** the prepared intestines of animals, *e. g.*, sheep and cats. Catgut is used for such purposes as suture material and ligatures for surgical work, violin strings, etc.

gut'ta, pl. guttæ. Latin for drop.

gut'tural (Lat. *guttur* = the throat). Pertaining to, or formed in, the throat.

gyne'cic (Gr. *gyne* = a woman). Pertaining to women. That which is distinctively feminine.

gynecol'ogist. A physician or surgeon who makes a specialty of gynecology.

gynecol'ogy (Gr. *gyne* = a woman and *logos* = a discourse). That branch of medicine which treats of diseases of the female generative organs.

gyniat'rics. Treatment of gynecological diseases.

gyp'sum. Calcium sulphate. When calcined (oxidized and reduced to powder), it is known as *Plaster of Paris*.

gyrate' (Gr. *gyros* = a circle). Going around in a circle.

gy'rus, pl. **gyri** (Gr. *gyros* = a circle). A convolution of the brain.

H

H. The symbol for hydrogen.

hab'it. The manner of doing a thing or of thinking on 'account of impression made upon the brain as the result (1) of frequently doing a thing in the same way; (2) of training or lack of training in thinking; (3) of natural disposition; (4) of education; and (5) of environment. **H. spasm**, a habitual, spasmodic, involuntary movement.

hab'itat. The place in which any particular species of animal lives when wild, or any species of plant grows wild.

hallucina'tion. Belief in the existence of things which do not exist; *e. g.*, in certain forms of insanity, the patient will hear voices where there are no voices, see people who are not present, and so on.

ha'logen (Gr. *halo* = the sea and *gennao* = to produce). The elements bromin, chlorin, fluorin, and iodin are classed as the *halogen group*, because their salts resemble sea salts and the elements, except fluorin, can be obtained from substances coming from the sea, as sea-salt and kelp.

ha'loid. A salt of any one of the halogen group of elements.

ham. The popliteal—knee—region. **H. strings**, the tendons of the posterior muscles of the thigh.

hanging drop. A preparation of living bacteria for examination under the microscope. A special slide, with a dent in the center, is used for the purpose, and a drop of fluid medium containing the micro-organism is placed on a cover glass and the latter turned over the slide in such a way that the drop of medium hangs into the depression in the slide.

hang'nail. A piece of dried epidermis or a slit in the epidermis at the side of a nail.

hare'lip. A congenital cleft or fissure of a lip.

hart'shorn. A popular name for aqua ammonia.

hash'ish. See *Cannabis Indica*.

haut mal *ho'-mal*. A name applied to an epileptic attack when there are convulsions.

Haver'sian. Named after Clopton Havers, an English anatomist, 1650-1702. **H. canal**, one of the anastomosing canals in compact bone tissue that serve for the passage of blood and lymph-vessels and nerves. **H. system**, the canals, canaliculi, lacunæ, and lamella of bone considered collectively.

hay fever. A form of coryza that occurs in people whose nasal mucous membrane is abnormally sensitive to certain irritating substances, such as the pollen of plants. The condition resembles a severe cold in the head.

head'ache. Pain in the head. It may be caused by: Breathing impure air; lack of proper aëration of the blood from any cause; by nervousness; by autointoxication as the result of constipation or defective metabolism; by poisoning due to germ invasion; by

disorder in any of the viscera; and it is very frequently the result of eye strain.

heal'ing. The process of repair and union of a wound. **H. by first intention**, the healing of a wound without the formation of granulations. An aseptic wound, the sides of which are brought together, will usually heal in this way. **H. by second intention**, the filling in of a wound with granulations. **Physiology of h.**, when a wound is made a blood-clot forms between the cut edges, and the blood-vessels in the surrounding tissues become congested. This increased blood supply favors the growth and subdivision of tissue cells so that new cells are formed rapidly in and around the blood-clot; also, new cells spring from those composing the severed blood-vessels and form loops on the vessels. These extend into the new tissue and serve to hold its blood supply.

health. Free from disease.

hear'ing. The special sense by which sound is perceived and interpreted. **H. center**, the part of the brain in which sounds are interpreted. **Mechanism of h.**, the sound waves pass through the external auditory canal and striking the drum membrane start it vibrating; this moves the hammer and the motion is transmitted from it over the anvil and stirrup to the membrane covering the oval window and starts this membrane vibrating. This sets up waves in the perilymph—the fluid in the cochlea—which affect the terminal cells of the organ of Corti. This, in turn, excites the irritability of the auditory nerve endings, thus stimulating

that nerve, and the sensations excited pass over the nerve to the center of hearing in the brain.

heart. A hollow muscular organ situated in the thoracic cavity between the right and left lungs, but extending farther to the left than to the right of the median line. Its interior is so divided that there are four cavities, the two upper ones of which are called the *auricles* and the two lower the *ventricles*. There is an opening, guarded by a valve, between each auricle and ventricle, but, after birth, there is no direct communication between the two sides of the heart. The left auricle receives the blood from the lungs, forces it into the left ventricle, which discharges it into the aorta, whence it flows through the system. The right auricle receives the blood that has been through the body, discharges it into the right ventricle, which forces it into the pulmonary artery, whence it flows to the lungs to give up its carbon dioxide and receive oxygen. **H. block**, Stokes-Adams disease, in which the band of muscle fibers over which contractions pass from the left auricle to the left ventricle is injured and, consequently, the ventricle does not receive stimuli from the brain and beats only 26–28 times a minute, though the auricle beats about the normal number of times. Patients with this disease have frequent attacks of syncope. **H. burn**, a burning sensation in the stomach as the result of dyspepsia.

heat. A quality of matter produced by molecular motion. **Cause of expansion of bodies**

by **h.**, the hotter a body becomes, the more active are its molecules, and their increased activity causes them to occupy more space, thereby producing an expansion of the matter.

Latent h., the heat which a body can absorb without undergoing a rise of temperature, *e. g.*, the heat that is used up in the changing of a solid to a liquid; thus, when heat is applied to ice, the temperature of the latter rises until it is 0°C. , then the ice begins to melt and, while it is doing so, it will absorb heat, but its temperature will not be raised until it is all melted. The latent **h.** of melting ice is said to be 80 heat units, because as much heat is required to change one pound of ice at 0°C. , to one pound of water at 0°C. , as would be needed to raise the temperature of one pound of water from 0°C. to 80°C. The heat required for changing matter from a solid to a liquid state is taken from surrounding objects. On this account the ice in the refrigerator cools the air and the contents of the latter. It is said that 20 pounds of ice will, while melting in a refrigerator, absorb enough heat to lower the temperature of 40 pounds of butter 40°F. A very low temperature can be secured by the use of a mixture of ice and salt, since heat is required for the liquefaction of both. Latent heat is lost from matter when it changes back to a solid form; for this reason, the temperature of the air around a body of freezing water will be somewhat raised.

Relative h. of bodies, the comparative degree in which bodies can produce a sensation of heat or cold. This depends upon the relative speed with

which they give up or absorb heat; *e. g.*, a piece of iron will feel much warmer or colder to the hand than a piece of wool, though the two have the same temperature, because the cold iron will absorb the heat from the hand and it will, when heated, part with its heat more rapidly than wool.

Sources of h., the sun; chemical action, including combustion; electricity; friction; percussion pressure. **Specific h.**, the ratio which the amount of heat necessary to raise a given weight of a substance 1°C. bears to the amount of heat needed to raise the same weight of distilled water 1°C. ; *e. g.*, the amount of heat required to raise a piece of lead 1°C. is found to be only .03 as much as the amount of heat needed to raise the same weight of water 1°C. , therefore the specific heat of lead is said to be .03 of a heat unit.

H. unit, a calory. See Calory.

hec'tic (Gr. *hektikos* = habitual).

Habitual. **H. fever**, the fever of tuberculosis. **H. flush**, reddening of the cheeks such as that which occurs in tuberculosis.

hect'ogram. One hundred grams.

hect'oliter. One hundred liters.

hect'ometer. One hundred meters.

he'lium. A gaseous element that exists in the sun, air, and various minerals.

he'lix. (1) A coil, as of wire, in an electromagnet. (2) The outer margin of the pinna of the ear.

he'ma. Anglized form of the Greek prefix *hama* signifying blood.

he'machrome (Gr. *hama* = blood and *chroma* = color). Red coloring matter of the blood.

he'macyte, hematocyte. A blood corpuscle.

he'magogue (Gr. *hæma*=the blood and *agogos*=evoking). An agent that promotes the menstrual flow.

hemate'in. A red-brown substance derived from hematoxylin.

hematem'esis (Gr. *hæma*=the blood and *emesis*=vomiting). The vomiting of blood.

hemat'ic. Pertaining to the blood.

hematidro'sis. Blood in the perspiration. It is due to an extravasation of blood into the sweat glands or ducts.

hematim'eter. An instrument used in counting the blood corpuscles.

he'matin. The coloring matter of blood; it is one of the constituents of hemoglobin.

hematin'ic. Same as hematic. An agent that improves the quality of the blood.

hematinom'eter. An instrument used for ascertaining the quantity of hemoglobin in the blood.

hematinu'ria. Urine containing hematin.

he'mato. A prefix signifying some relationship to the blood.

hemat'oblast. An erythroblast; *i. e.*, a nucleated red blood corpuscle, such as is found in the bone-marrow and from which red blood-corpuscles are derived.

hemat'ocyst. (1) A cyst containing blood. (2) An effusion of blood into the bladder.

hematog'enous. Originating in the blood.

he'matoid. Resembling blood.

he'matol. A medicinal preparation of hemoglobin, glycerin, and brandy.

hemaoty'sis. Disintegration of the blood.

hemato'ma. A tumor containing blood. **H. auris**, a blood-tumor beneath the perichondrium of the ear. It is sometimes known as the *insane ear*, since the condition is very common in the insane.

hematon'ic. Any medicine used to improve the quality of the blood.

hematox'ylin. A stain derived from logwood.

hematozo'ön. A animal organism that can live in the blood —*e. g.*, the malarial organism.

hematu'ria. Blood in the urine.

hemeralop'ia (Gr. *hemera*=a day and *alaos*=blind). (1) Day blindness, *i. e.*, not able to see well in daylight. (2) The word is used also to signify *nyctalopia* or night-blindness.

hem'i. A prefix signifying half.

hemial'gia (Gr. *hemi*=half and *algos*=pain). Neuralgia on one side.

hemianesthe'sia. Loss of sensibility on one side of the body.

hemiano'pia. Inability to see more than about one half the area that would naturally come within the range of vision.

he'mic. Pertaining to the blood.

hemio'pia. See Hemianopia.

hemio'pic. (1) Affected with hemiopia. (2) Affecting only one eye.

hemiparesthe'sia. Paresthesia or perverted sensation of one side of the body.

hemiple'gia (Gr. *hemi*=half and *plētō*=to strike). Paralysis of one side of the body. **H. spastic**, that associated with spasms and atrophy. It occurs most frequently in infancy.

he'mocyt. A blood-corpuscle.

hemocytol'ysis. See Hemolysis.

hemoglo'bin. A complex protein substance contained in the red blood-corpuscles. It contains about 86-94 per cent. globin, a simple protein, and about 4 per cent. hematic, a bluish red pigment. Hemoglobin contains iron which has a strong attraction for oxygen, and, because of this, the hemoglobin will unite with oxygen while the blood is flowing through the lungs, thereby forming *oxyhemoglobin* which is of a bright red color. This combination is weak, however, and, when the blood is passing through the tissues, where there is no free oxygen, the oxyhemoglobin parts with its oxygen to the tissues and the carbon dioxide that has been formed in the tissues by oxidation enters the blood. This exchange of oxygen and carbon dioxide constitutes what is known as *internal respiration*. The blood of a healthy person contains about $14\frac{1}{2}$ grams hemoglobin per each hundred cubic centimeters, or about $1\frac{1}{2}$ pounds in the entire body; $14\frac{1}{2}$ grams is therefore called 100 per cent. Sometimes, as shortly after a hemorrhage or severe illness, the red blood-cells may be formed so rapidly that they will be small and contain an abnormally small amount of hemoglobin. In such case, the individual will show the symptoms of anemia, even when the blood contains the normal number of red cells, for, without the hemoglobin, the cells cannot perform their function of carrying oxygen to the tissues. **H. carbon-monoxid,** hemoglobin combined with carbon-monoxide. This

gas (which is formed by the partial oxidation of carbon and carbon compounds, and in a number of other ways, and is one of the constituents of most gases used for fuel and lighting) will unite very firmly with hemoglobin. For this reason, if a person inhales gases containing it, his hemoglobin will be rendered useless and he is likely to die of asphyxiation. **Reduced h.,** that from which oxygen has been removed; *e. g.*, the hemoglobin in venous blood.

hemoglobinu'ria. Hemoglobin in the urine. It is due to an abnormally rapid destruction of red blood-cells.

he'mol. A tonic prepared from hemoglobin. Dose, 2-7 grains.

hemol'ysins. Certain substances that will promote hemolysis; *e. g.*: (1) the toxins of certain bacteria; (2) substances produced in the animal body that cause the serum of one species of animal to destroy the red blood-cells of other species,—the nature of this substance is as yet unknown; (3) snake venom.

hemol'ysis. The disintegration of red blood-corpuscles and the consequent loss of their hemoglobin. Some of the known causes of hemolysis are: (1) The addition to the blood of water or a solution of such low specific gravity that it diminishes the concentration of the blood plasma. When this is done, the osmotic pressure without the corpuscles is greater than that within; consequently the water passes into the cells in sufficient quantity to rupture them. (2) By the addition to the blood of ether, chloroform, amyl alcohol, various drugs, strong acids, strong

alkalies, soaps, bile, bile salts, various toxins—such as those produced by bacteria and some products of defective metabolism,—and the hemolysins in the blood of animals of another species. Hemolysis gives rise to anemia.

hemolyt'ic, hematoly'tic. Pertaining to, or causing, hemolysis.

hemophil'ia. Hemorrhagic diathesis, *i. e.*, a tendency to bleed easily. People so afflicted may bleed to death from a very small wound. The cause of the condition is not fully understood, but for some reason the blood fails to clot properly.

hemop'tysis (Gr. *hæmo*=blood and *ptuo*=to spit). The spitting of blood.

hem'orrhage (Gr. *hæma*=blood and *rhēnumi*=to burst forth). The escape of blood from its containing vessels. **Concealed h.**, internal hemorrhage. **External h.**, that in which the blood escapes from the body. **Internal h.**, that in which the blood escapes into a cavity and does not escape from the body. **Post-partum h.**, that which occurs after childbirth. **Primary h.**, that occurring as the result of an accident or immediately after an operation. **Secondary h.**, that occurring, sometime after an accident or injury, from the sloughing of tissue, slipping of ligatures, etc. **Symptoms of h.**, growing pallor; weak, shallow, sighing respiration; thirst; restlessness; a weakening of the pulse-beats, which also become rapid and irregular; a falling temperature; and, except in internal hemorrhage, the presence of the blood.

hemorrha'gic. Pertaining to, or associated with, hemorrhage.

hem'orrhoid, pile. A dilated, congested vein which forms a species of small blood-tumor at the rectal orifice. The usual cause is some condition, such as constipation or pregnancy, that interferes with the venous circulation in the rectum.

hemorrhoi'dal. Of the nature of, or pertaining to, hemorrhoids. Pertaining to the anus.

hemorrhoidec'tomy. Removal of hemorrhoids.

hemosta'sis. Stagnation of blood. Checking the flow of blood either in or from a vessel.

he'mostat. An apparatus for checking hemorrhage.

hemostat'ic. An agent that will check hemorrhage or cause hemostasis.

hen'bane. See Hyoscyamus.

he'par. Latin for liver.

hepat'ic. Pertaining to the liver.

hepatization. A change in the tissue of an organ which makes it resemble that of the liver; *e. g.*, the lung in pneumonia.

hepatogen'ic. Originating in the liver.

hepat'olith. A gall-stone within the liver.

hepatolithec'tomy. Excision of an hepatolith.

hepatol'ysis. Destruction of liver cells.

hepatopex'y. Fixation of a displaced liver.

hepatorrh'e'a. An excessive secretion of bile.

herba'ceous (Lat. *herba*=a herb) Of the nature of, or derived from, herbs.

herbiv'orous. Feeding upon plants.

hered'itary (Lat. *hereditere* = to inherit). Descending by inheritance. **H. characteristics**, those inherited from one's ancestors. **H. diseases**, those acquired from parents from substance present in the germ cells from which the embryo develops. Many diseases once called hereditary are now termed *congenital*, because it has been proved that the infections were acquired either during intra-uterine life or parturition. **H. substance**, matter, the nature of which is unknown, contained in the chromosomes of the nuclei of the ova and sperm-cells through which the parents' characteristics and tendencies are transmitted to their offspring.

hered'ity. The inheritance of characteristics, diseases, etc., from immediate or remote ancestors.

hermaph'rodite (Gr. *Hermaphroditos* = the son of Hermes and Aphrodite, who mythology states became joined to the nymph Salmacis). One who partakes of the nature, or has some of the organs of generation, of both sexes.

her'nia. The protrusion of an organ or part of an organ from its place. The more common causes are lifting heavy weights, strain or other injury, such as a blow on the abdomen. **Congenital h.**, that which exists at birth. **Femoral h.**, protrusion of a loop of intestine through the femoral ring, *i. e.*, between the abdominal muscles just above the groin. **Inguinal h.**, protrusion of a loop of intestine between abdominal muscle into the inguinal canal. **Irreducible h.**, one that cannot be reduced by manipulation. **Omental h.**, hernia of the omen-

tum. **Reducible h.**, one that can be reduced by manipulation. **Scrotal h.**, an inguinal hernia in which the protruding viscera have entered the scrotum. **Strangulated h.**, one in which the muscles, between which the viscera have protruded, become constricted, thus making it impossible to reduce the hernia, and so interfering with the circulation of blood in the part that gangrene is likely to occur. **Umbilical h.**, protrusion between the abdominal muscles at the umbilicus. **Ventral h.**, one through some part of the abdominal wall.

hero'ic. Severe.

her'oin. An acetic ester of morphine. It resembles morphine sulphate in its action but is a less powerful analgesic. It has the same cough-sedative action as codein and is a common ingredient of cough mixtures. Dose gr. $\frac{1}{20}$ – $\frac{1}{10}$.

her'pes. An acute non-contagious disease characterized by the appearance of one or more clusters of small vesicles on the skin or mucous membrane. It is the result of a form of neuritis. **H. labiales** or **fever blister**, that which occurs on the surface of a lip; it is very common in colds and febrile diseases, especially pneumonia, malaria, and cerebrospinal meningitis. **H. zoster**, or **shingles**, herpes associated with severe neuralgic pains and the formation of clusters of vesicles along the distribution of certain nerve trunks, most frequently the intercostal nerves. Owing to the manner in which the nerves are distributed, the lesions will appear on one side of the body only.

het'ero (Gr. *heteros* = another).

A prefix used to denote difference.

heterochro'mous (Gr. *heteros* = another and *chroma* = color). Diversity of color.

heterog'enous (Gr. *hetero* = another and *genos* = kind, kin). Of a different origin or nature. Containing more than one kind of substance.

heterogen'esis. Reproduction in which the offspring differs from the parents.

heterogenet'ic. (1) Arising without the organism. (2) Relating to heterogenesis.

hexatom'ic. Containing six atoms of an element.

hex'ose. Any one of the sugars having six carbon atoms in a molecule; *e. g.*, cane sugar $C_6 H_{12} O_6$.

Hg. The chemical symbol for mercury, the Latin word for which is *hydrargyrum*.

hia'tus (Lat.). (1) A space or fissure. (2) The vulva.

hic'cup, hiccough, singultus. A peculiar noise on inspiration due to clonic spasm of the diaphragm and glottis as the result of some irritation, either local or reflex. It sometimes occurs as a temporary condition after eating or drinking, especially when these acts have been performed too quickly or when the substances taken are of an irritating nature. In children it sometimes follows a fit of crying. Persistent hiccup sometimes occurs in extreme exhaustion following acute or chronic diseases, and it frequently complicates peritonitis.

hidro'sis (Gr. *hidroō* = to sweat). (1) The secretion and excretion of sweat. (2) Profuse perspiration.

High'more. An English surgeon who lived 1613-1684.

H's antrum, one of the two cavities in the upper jaw. These cavities open one on either side into the nose and are often the seat of a troublesome infection, the usual source of which is some abnormal condition in either the nose or teeth.

hi'lum, hilus. A fissure or depression in an organ at the point where the vessels, nerves, etc., enter and leave it.

hinge-joint, gingly'mus. A joint which permits of motion in two directions only, viz., flexion and extension; *e. g.*, the knuckles and the elbow (the rotary movements of the forearm occur in the articulation between the radius and the ulna, not in the elbow).

hip. The upper part of the thigh. **H. joint**, the articulation of the femur and hip-bone or os-innominata. **H. joint disease**, tuberculosis of the hip-joint.

hippu'ric (Gr. *hippos* = a horse). A crystallizable acid contained in the urine of domestic animals and sometimes in that of human beings.

hir'sute (Lat. *hirsutus* from *horere* = to bristle). Rough, hairy, covered with bristles.

his'to (Gr. *histos* = a web or tissue). A prefix used to denote some relation to organic tissues.

his'toblast (Gr. *histos* = tissue and *blastos* = a germ). A tissue cell.

his'togenic (Gr. *histos* = tissue and *genesis* = birth, source). Tissue-forming.

histol'ogy (Gr. *histos* = tissue and *logos* = a discourse). The branch of anatomy which

treats of the structure of tissue.

histolý'sis (Gr. *histos*=tissue and *lysis*=a separation). The disintegration of tissue.

his'ton. A simple protein substance that occurs chiefly in blood-corpuscles and the spermatozoa of fish.

hives. The popular name for urticaria.

Hodgkin's Disease, pseudoleukemia. A disease characterized by a progressive fatal anemia and hypertrophy of the lymphatic glands, but without marked excess of white corpuscles as in leukemia.

Hoffman's Anodyne. A compound of ether, ethereal oil, and alcohol that is used as a carminative, an antispasmodic, and a stimulant. Dose, 1-2 drams.

homeop'athy (Gr. *homoios*=like and *pathos*=suffering). A system of medicine which holds that diseases can be cured by using minute doses of medicines which, in large doses, would produce symptoms corresponding to those of the disease.

hom'icide (Lat. *homo*=a man and *cædo*=to kill). Murder. A murderer.

homoge'neous (Gr. *homos*=same and *genos*=kind). Of a like structure or nature.

homogen'esis (Gr. *homos*=same and *genesis*=birth). The production of matter from similar matter, which is the ordinary method of the reproduction of living cells.

homol'ogous (Gr. *homos*=same and *logos*=a word, a discourse). Parts that have the same structure or function.

hom'ologue. An organ that is common to a number of species. A homologous organ.

hook'worm. See *Uncinaria*.

hops, hum'ulus. The cones or spikes of the hop-plant, also the drug obtained from them, which acts as a nerve sedative and hypnotic. Dosage: fluid extract, $\frac{1}{4}$ -1 dram; tincture, 1-3 drams.

hor'dein. A protein substance obtained from barley.

hordeo'lum (Lat. *barley, corn*). A sty, *i. e.*, a small boil or abscess at the root of an eyelash.

hor'mone (Gr. *hormos*=a chain). A chemical substance such as is produced in certain organs of the body which, when carried by the blood to another organ, excites the functional activity of the latter; *e. g.*, secretin, which is produced as the result of the action of acid upon some constituent of the intestinal mucous membrane, and, when carried by the blood to the pancreas, stimulates the flow of pancreatic juice.

hos'pitalism. Any morbid condition resulting from residence in a hospital.

host. Any organic body upon, or in, which another organism lives as a parasite.

housemaid's knee. Inflammation of the patella bursa, so called because frequently occurring in those who kneel to do scrubbing.

hu'merus. The bone of the upper arm.

hu'mid (Lat. *humidus*). Moist.

humid'ity. Moisture—the word is used more especially in connection with the air. **Absolute h.**, the amount of aqueous vapor which the air contains

expressed in the number of grains of moisture per cubic foot of air. **Relative h.**, the amount of vapor that is present in the air expressed as a percentage of the amount that the air will hold without the moisture being precipitated in the form of dew, rain, etc. When the air contains all the vapor that it can hold at its present temperature it is said to be *saturated* and the relative humidity is 100 per cent. 70-75 per cent. is generally considered the most pleasant degree of humidity.

hu'mor (Lat. *humere* = to be moist). Any fluid or semi-fluid of the body. In the time of Galen it was thought that the body contained four humors, the *blood*, the *phlegm*, the *yellow bile*, and *black bile*, and that health depended upon the proper proportioning of these humors. **Aqueous h.**, the watery fluid of the eye contained in the anterior chamber. **Vitreous h.**, the viscid fluid contained in the posterior chamber of the eye.

hun'ger. A distressing sensation caused by want of food. It is thought to be due to stimulation of (1) a special set of nerves (distributed to the mucous membrane of the stomach) by a collapsed condition of the stomach; (2) nerves that are affected by metabolism. **Air h.**, a longing for air, dyspnœa. It is one of the symptoms of hemorrhage and it often precedes an attack of diabetic coma.

Hunya'di Ja'nos. A water from Hungary, containing sodium and magnesium sulphates, sodium carbonates, and sodium chlorid. It is used as a laxative.

hy'aline (Gr. *hyalos* = glass).

Transparent, glass-like. **H. cartilage**, a variety of cartilage that somewhat resembles ground glass in appearance.

hy'aloid. Resembling hyaline.

hy'brid. Anything derived from two distinct sources.

hy'datid (Gr. *hydōr* = water) A tumor resulting from the development within the human body of a species of tapeworm that exists in the intestines of infected dogs.

hy'dragogue (Gr. *hydōr* = water and *ago* = to drive). A purgative that produces watery evacuations.

hydrar'gyri, hydrar'gyrum. Mercury.

hydrargy'ria. Mercurial poisoning.

hydrarthro'sis, hydrarthrus. An effusion of serum into a joint.

hydras'tin. An alkaloid of hydrastis. Dose $\frac{1}{4}$ -1 grain.

hydras'tis. A drug obtained from the root of the *Hydrastis Canadensis*. It is used as an astringent, stomachic, and cholagogue. Dosage, fluid extract, 5-60 minims; tincture, $\frac{1}{2}$ -2 drams.

hy'drate (Gr. *hydōr* = water). A chemical substance having water in direct combination.

hydra'tion. Combining with water.

hydrau'lics (Gr. *hydraulis* = a water organ). The branch of physics which treats of the action of fluids in motion.

hydre'mia. A diluted condition of the blood.

hydriat'rics. Hydrotherapeutics.

hy'drid. A compound of hydrogen and another element.

hy'dro (Gr. *hydōr* = water). A prefix used to denote the presence of water or hydrogen.

hy'drocarbon. A compound composed of hydrogen and carbon; *e. g.*, methane, acetylene, benzene.

hy'drocele (Gr. *hydōr*=water and *kele*=a tumor). A scrous effusion into some part of the scrotum.

hydroceph'al'ic. Pertaining to hydrocephalus.

hydroceph'alus (Gr. *hydōr*=water and *kephale*=the head). A scrous effusion within the skull. The disease may be congenital or it may develop during the first few months of life. The sutures and fontanelles remain open and the head becomes much enlarged. The child usually dies within a few months.

hydrochlo'rate. A salt of hydrochloric acid.

hydrochlo'ric. Consisting of hydrogen and chlorin. **H. acid**, muriatic acid, HCl. An acid composed of chlorin and hydrogen. It is prepared in connection with the manufacture of sodium sulphate, the two substances resulting from the interaction of sodium chlorid and sulphuric acid.

hy'drocyst. A cyst containing water.

hy'drogen. A light, odorless, tasteless, gaseous element. It is inflammable, but will not support combustion. **H. peroxid**, an aqueous solution of oxygen. It is employed to disinfect and to free wounds and ulcerating surfaces from pus and necrotic matter and as a hemostatic.

hy'drogol. A proprietary preparation of silver used in the treatment of gonorrhea.

hydrol'ysis. The splitting up of a complex substance due to the absorption of water

into its molecules. The chemical changes that occur in food stuffs in the process of digestion are examples of hydrolysis.

hydrolyt'ic. Tending to remove water from a substance.

hydrom'eter. An instrument used to determine the specific gravity of fluids.

hy'dropathy. A system of therapeutics which claims to cure all disease by the use of water.

hydropho'bia, rabies (Gr. *a horror of water*). An infectious disease communicated by the bite of infected animals. The organism causing the disease has not been isolated, but the toxin developed in the course of the disease can be extracted from the central nervous system of animals who have died from hydrophobia and an antitoxin serum is prepared from such extract. The chief characteristics of the disease are, the long period of incubation, 1-6 months, and the tetanic spasms, which are excited and increased by attempts to drink, or even the sight of water, and by noises, a bright light—in fact anything that will act as a stimulus to the sensory nerves.

hydrosal'pinx. Water in a Fallopian tube.

hydrostat'ic (Gr. *hydōr*=water and *statikos*=standing). Relating to liquids in a state of rest or equilibrium.

hydrotho'rax. Fluid in the pleural cavity.

hydrox'yl. The radical HO.

hy'giene (Gr. *hygiainō*=healthy). The science treating of the prevention of disease and the means of securing health.

hygien'ic. Pertaining to hygiene.

hy'men (Gr. *hymen* = a membrane). A fold of membrane at the entrance of the vagina.

hy'oid. (1) Shaped like the Greek letter upsilon, U. (2) The bone situated just above the thyroid cartilage and at the base of the tongue.

hy'oscin. An alkaloid of *hyoscyamus*. It is a powerful nerve depressant, hypnotic, and mydriatic. Dosage: $\frac{1}{80}$ of a grain; **H. hydrobromide**, $\frac{1}{100}$ – $\frac{1}{50}$ of a grain.

hyoscy'amus. A drug obtained from the leaves of the *Hyoscyamus niger*. Its action resembles that of belladonna, except that it has a sedative effect upon the brain and urinary bladder. Dosage: extract, $\frac{1}{2}$ –3 grains; fluid extract, 5–15 minims; tincture, 1–4 drams.

hy'per. A prefix derived from the Greek and used to signify above or beyond.

hyperacid'ity. Abnormally or excessively acid.

hyperalge'sia. Excessive sensitiveness to pain.

hypere'mia. An excessive amount of blood in any part of the body. Congestion. **Bier's passive h.**, that induced by the use of Bier's cups or a tight bandage. Hyperemia is induced in this way or by heat for the purpose of destroying bacteria and relieving pain due to inflammation. That it does so is due to (1) the extra number of phagocytes which are thus brought to the part to destroy the bacteria; (2) the dilution of the inflammatory exudates and bacterial toxins, which irritate the sensory nerves and are thus largely responsible for the pain attending inflammation. Also, by this treatment extra

nourishment is afforded the tissues, which, consequently do not break down so readily.

hyperesthe'sia. Excessive sensitiveness of any of the sensory organs; the condition is often associated with hysteria.

hypermetro'pia, hyperopia. Farsightedness, *i. e.*, the near point of distinct vision is farther away than with the normal eye, either because the eyeball is too small or because the refractive power of the eye is lessened so that the curvature of the cornea and lens is diminished and parallel rays of light would have to extend behind the retina to come to a focus.

hyperpyrex'ia. Excessively high body temperature.

hypersen'sitive. Abnormally sensitive.

hyperto'nia. Excessive tension.

hyper'trophy. Abnormal enlargement of an organ or part. **Compensatory h.**, that due to increased functional activity of an organ resulting from some defect in the latter and which, in some cases, makes it easier for the impaired organ to perform its work.

hypha, pl. hyphæ. One of the threads constituting the mycelium of molds and similar fungi.

hyphomyce'tes. A group of fungi such as the molds.

hyp'nal. A preparation of chloral hydrate and antipyrin used as a hypnotic. Dose, 15–30 grains.

hypnot'ic (Gr. *hypnos* = sleep). A medicine or other agent which causes sleep.

hypnotism. A condition of induced sleep or trance brought about by suggestion.

hypo (Gr. *under*). A prefix signifying under, beneath.

hy'poblast, endoderm. The innermost layer of the cells of the primitive embryo. It is the source of the greater part of the respiratory and alimentary tracts, the liver, pancreas, and other glands.

hypocho'n'driac. (1) A person suffering from melancholy, or a morbid anxiety about the health. (2) Pertaining to the hypochondrium.

hypocho'n'drium (Gr. *hypo*=under and *chondros*=a cartilage). See Abdominal regions.

hypocho'ria (Gr. *hypo*=under and *chroma*=color). A deficiency of coloring matter or pigment.

hypocho'ris. A deficiency of hemoglobin in the blood.

hypodermat'ic, hypodermic (Gr. *hypo*=under and *derma*=skin). Injected beneath the skin.

hypodermocly'sis. The introduction of large quantities of fluid, usually normal salt solution, into the tissues.

hypoglos'sal. Under the tongue.

hypo-isoton'ic. Said of a solution of lower specific gravity or osmotic pressure than another.

hypophos'phite. A salt of hypophosphorous acid.

hypophy'sis cere'bri (Gr. *hypo*=under and *physis*=nature and Lat. *cerebrum*=the brain). The pituitary body; *i. e.*, a small glandular body situated in a depression of the sphenoid bone. Its secretion affects metabolism in some unknown way, and lack of body growth, as in dwarfs, and overgrowth, as giantism, are thought to be due to abnormalities in this gland.

hypospa'dia, hypospa'dias (Gr. *hypo*=under and *spao*=to draw). (1) A congenital fissure of the urethra on the under side of the penis. (2) A fissure between the urethra and the vagina.

hypos'tasis (Gr. *hypo*=under and *stasis*=standing). (1) A sediment. (2) Congestion in the blood-vessels due to poor circulation.

hypothermia. Abnormally low temperature.

hypoton'ic. (1) Lack of tone or strength. (2) Having a low specific gravity and osmotic pressure.

hypoxan'thin. One of the substances resulting from the oxidation of certain proteins. It is found in both plant and animal tissues and is excreted from the animal body in the urine.

hyr'gol. A preparation of mercury used as an inunction in the treatment of syphilis.

hysterec'tomy (Gr. *hystera*=the uterus and *tome*=a cutting). Removal of the uterus. **Complete h.**, removal of the uterus and its appendages. **Vaginal h.**, hysterectomy performed through the vagina.

hyste'ria. A disease of nervous origin that is characterized by a skilful and, usually, unconscious imitation of other diseases.

hyster'ical. Resembling hysteria. Pertaining to hysteria.

hysteropex'y, hysteropex'ia. An operation for the fixation of a displaced uterus.

hystero'pia. Disorder of the vision due to hysteria.

hyster'oscope. An instrument used for the inspection of the uterus.

I

I. The chemical symbol for iodine.

ice. Frozen water. **Artificial i.**, that made by the use of some volatile liquid, as ammonia, sulphur dioxide, or ether. These substances vaporize at a low temperature and in doing so absorb heat from matter around them. Anhydrous ammonia is the liquid most generally used, and one method of using it is to force it through long pipes submerged in a tank of brine and coiled around cans of distilled water. The heat of the brine causes the ammonia to evaporate, and in doing so it takes the heat from the water (see Evaporation) so that it freezes. The gas passing from the coils is received into a receptacle where it is subjected to great pressure and thus condensed. When once more reduced to a liquid state it is again forced through the coils.

ichthyol *ik'-the-ol* (Gr. *ichthys* = a fish). A thick brownish liquid prepared from asphalt containing the debris of fish. It contains 10 per cent. of sulphur. It is used externally as a sedative, antiseptic, and alterative.

ichthyo'sis. A skin disease characterized by thickening, dryness, and scaliness of the epidermis.

ic'terus. Latin for jaundice.

I. neonatorum, the jaundice sometimes seen in the newborn. This, when slight, is thought to be due to the presence in the blood of a large amount of bile pigment that has been absorbed from the intestine. It usually disappears in a short time. When the condition is marked, it is

often the result of congenital stricture of the common bile-duct, syphilis, or septic infection.

ide'a (Gr. *thought*). A mental image or conception.

id'ioey. Mental deficiency. Imbecility.

idiopath'ic (Gr. *idios* = peculiar to one's self and *pathos* = suffering). A disease that is not preceded by any other. A primary or spontaneous disease. Without known cause.

idiophrenia *id-e-o-fre'-ne-ah*. Insanity characterized by a marked perversion of ideas.

id'ioplasm. The germ-plasm or vital, reproductive substance contained in the chromosomes of the nuclei of cells.

id'ioplasty, **idioplastia** (Gr. *idea* = thought and *plassein* = to form). The physiological realization or putting into action of an idea impressed upon the mind while under hypnosis.

idiosyn'crasy (Gr. *idios* = private, peculiar to one's self, and *synkrasis* = mixture). Individual peculiarity. Susceptibility.

id'iot. A person devoid of intellect or reason.

ignite'. To take fire.

il'eac. Pertaining to the ileum.

ilei'tis. Inflammation of the ileum.

il'eo (Gr. *eileō* = to twist). A prefix used to show relationship to the ileum.

il'eum. The part of the small intestine between the jejunum and the cecum.

il'iac (Lat. *ilium* = the flank). Pertaining to the ilium or the flank; *i. e.*, the part of the body between the ribs and the ilium. I. arteries, the right

and left common i. arteries formed by the bifurcation of the abdominal aorta and the internal and external i. arteries into which each of the common iliacs divide. The branches of the internal iliacs are distributed to the pelvic organs and walls and structures around the hip-joint. The external iliacs pass over the brim of the pelvis and are continued down the thigh under the name of the *femoral artery*.

iliopectineal. Pertaining to the ilium and pubes.

il'ium, pl. ilia. One of the two large bones which form the sides of the pelvis.

illu'sion. A false perception or image. An unreal vision.

imbecil'ity. Mental weakness.

immac'ulate. Spotless, pure.

immature'. (Lat. *im*=not, *maturus*=ripe). Not perfected. Young.

immed'iate. Directly. Without intervention.

immerse'. To put anything into or under a fluid. To bury deeply.

immis'cible. Not capable of being mixed.

immo'bilize. To arrange a part so that it cannot be moved.

immune'. Protected against any particular disease by a previous attack of that disease or by being inoculated with the specific vaccine or antitoxin. **I. body,** see Antitoxin and Ehrlich's Theory.

immu'nity. The condition of being secure against any particular disease. **Acquired i.,** that which has been acquired either by an attack of the particular disease or by the introduction into the body of a vaccine or antitoxin. It

may be either active or passive. **Active i.,** that secured by the production of antitoxins or other immune bodies, by the body cells, as the result of an attack of the disease or of the introduction of an attenuated virus or vaccine into the system. **Natural i.,** the resistance to certain bacterial infections that is inborn in some individuals, races, and animals. The reasons for such lack of susceptibility are not clearly understood. It is thought that the differences in food, metabolism, and bodily temperature may account for the differences in the susceptibility of various species of animals, and, as a rule, a nation among whom a disease has been endemic for many ages is less susceptible to this disease than a race among whom it is newly introduced. **Passive i.,** that gained by the introduction into the system of antitoxins that have been prepared in the body of another animal.

immuniza'tion. The act or process of rendering a person immune or of becoming immune.

impact'. To force or press firmly together.

impal'pable (Lat. *in*=not and *palpare*=to feel). Not easily felt. Not easily understood.

im'par. Not in pairs.

impend'. To hang over. To threaten.

imper'forate. Closed.

imperm'eable. Impervious, impenetrable, not admitting the passage of fluid.

impet'igo contagio'sa. An acute contagious skin disease, characterized by the formation of flat yellowish blebs that dry

up and form thin yellow crusts. The exciting cause is unknown. It occurs most frequently in ill-nourished, anemic children.

implanta'tion. (1) The grafting of skin, nerves, tendons, etc. (2) The introduction of a substance as medicine into the tissues.

impond'erable (Lat. *im*=not and *pondus*=weight). Not possessed of sensible weight.

impost'hume. To gather pus. To suppurate.

im'potence. Lack of sexual power.

impreg'nate. To saturate with.

impres'sion. A mark. A copy taken by pressure. An indentation.

in. A prefix from the Latin, used to signify in, into, and not.

inac'tion. (Lat. *in*=not and *actio*=action). Lack of action.

inac'tose. A sugar found in the leaves of certain plants.

inad'equat. Inefficient.

inan'imate (Lat. *in*=not and *animatus*=alive). (1) Dead. (2) Lack of animation or spirit.

inani'tion (Lat. *inanis*=empty). Exhaustion from lack of nourishment.

inartic'ulate. Not uttered distinctly.

inassimil'able. That cannot be assimilated; *i.e.*, used for cell nutrition.

incandes'cent. White with heat. Glowing. **I. gas-light**, a clear, white, luminous light, that is obtained by admitting air where the gas enters the burner, and thus rendering the flame very hot, though non-luminous, and suspending in the flame a hollow mantle

saturated with certain oxids that emit a bright, clear luminous light when heated.

incar'cerated. Held fast. Inclosed.

incar'nadine. To dye a red color.

incar'nant, An agent that promotes the growth of new tissue in wounds.

incar'nate (Lat. *in*=in and *caro*=flesh). To invest with flesh.

in'cidence. Falling upon, as a ray of light, upon a reflecting surface. **Line of i.**, the straight line taken by a ray of light or heat moving to strike a plane at an acute or right angle.

incin'erate. To reduce to cinders or ashes.

incip'ient. In the first stages. Beginning.

incised'. Cut.

incis'ion. A cut.

inci'sive. Sharp, trenchant. Having the power to cut or dissolve.

inci'sor. Any one of the four front teeth in each jaw. They were so called because they are particularly adapted for cutting the food.

incoër'cible. That cannot be compelled.

incoher'ence. Lack of connection between ideas or parts. Inconsistence. Inconsequence.

incompat'ible. Not miscible. Said of medicines which counteract the action of each other or which, if united, undergo undesirable chemical changes.

incomp'etent. Inefficient. inadequate.

incon'gruous. Not harmonious. Not fitting.

incont'inence. (1) Involuntary evacuation of urine or fecal matter. (2) Lack of self-

restraint, especially in regard to sexual desire.

incoördina'tion. Lack of proper adjustment and ability to work in unison.

incorpora'tion. The process of mixing ingredients together so as to form one mass or body. The act of admitting or absorbing into a substance.

in'crement (Lat. *increscere* = to grow). Increase or growth in quantity, size, value, etc.

incuba'tion. The period between the time a person becomes infected with a disease and the appearance of the first symptoms. During this time the germ is multiplying and producing the toxins which give rise to the symptoms of the disease.

in'cubator. An apparatus in which the temperature can be easily regulated. There are many varieties; *e. g.*, those used for rearing prematurely born infants; those for maintaining bacterial cultures at a temperature best suited for their growth.

in'cubus (Lat. *incubare* = to lie upon). Anything which weighs heavily, especially upon the mind.

incur'able. That cannot be cured.

indel'ible. That cannot be effaced or blotted out.

indenta'tion. A dent or notch.

in'dex, pl. **in'dices** *in-di-sēz*. That which shows or points out. A table of contents or a reference in alphabetical order. **Color i.**, the relative proportion of red corpuscles and hemoglobin in the blood. **I. finger**, that next the thumb.

Indian hemp. See Cannabis Indica.

in'dican. Potassium indoxyl sulphate. A substance derived from indol. In the animal body the latter is formed in the intestine as the result of the putrefaction of proteins, and, after absorption, it is carried to the liver, where it is changed to indican, a somewhat less poisonous matter. A small amount of indican may be present in the urine normally, but more than a slight trace usually indicates that there is excessive putrefaction going on in the intestine. This is often due to constipation.

indicanu'ria. The presence of an excessive amount of indican in the urine.

in'dicator. (1) Any substance, that shows by a change of color that a chemical reaction has taken place; *e. g.*, litmus, turmeric, phenolphthalein. (2) The dial or other mechanism on the pressure gauge of a sterilizer or boiler for showing the degree of pressure within the apparatus.

indig'enous. Belonging, or native, to a place.

indiges'tible. That cannot be easily digested.

indiges'tion. Dyspepsia. Difficulty of digestion. **Acid i.**, that accompanied with an excess of acid in the stomach. **Intestinal i.**, defective intestinal digestion.

in'digo. A blue dyeing material obtained from several plants. It is sometimes found in the urine, being derived from indican.

indiru'bin. A red coloring matter sometimes present in the urine. It is derived from indican.

indiscrim'inate. Promiscuous. Making no distinction.

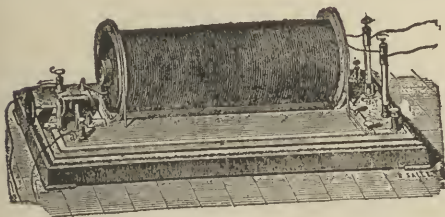
indoc'ible. Unteachable. Intractable.

in'dol. A substance produced by the putrefaction of proteins. See Indican.

in'dolent. Sluggish. Inactive. **I. ulcer**, an ulcer that does not heal readily.

induced'. Produced. **I. currents**, electric currents developed in conductors that are in proximity to other conductors; *e. g.*, a coil of long, thin, insulated wire wound around a coil of short thick insulated wire, through which a galvanic current flows. Induced or Faradic currents are of higher voltage or intensity, but of lower volume or amperage than galvanic or primary currents.

induc'tion coil. The coil of long thin wire that surrounds



Induction Coil

the primary coil of wire which is in connection with a battery.

indura'tion (Lat. *in*=in and *durus*=hard). The process of hardening. Abnormal hardening of a tissue or part.

inebri'ety. Drunkenness.

iner'tia. Inaction. Sluggishness.

in extre'mis. At the point of death.

infan'ticide. The murder of an infant.

infan'tilism. Lack of mental development.

infarct'. (1) A plug or thrombus in a blood-vessel. (2) Dead areas of tissue resulting from obstruction in the blood-vessels supplying the part.

infec'tion. That which causes the communication of disease. Communication of disease from one person to another.

infecun'dity. Sterility.

infe'rior. Lower, in place, quality, value, or degree.

infest' (Lat. *infestare* = to attack). To worry. To ravage.

infibula'tion. To fasten together.

infil'trate. (1) To ooze or filter into the spaces of a tissue. (2) The material thus deposited in the tissues.

infiltra'tion. The act or process of filtering into a tissue. The accumulation of abnormal matter in a cavity or tissue of the body.

infirm'. Weak.

infr'mary. A hospital or other institution where the sick and infirm are cared for.

inflamma'tion (Lat. *inflammare* = to set on fire). The reaction of the living tissues of the body against injurious influences. When anything occurs which irritates, or in any way injures, the tissues, the blood-vessels of the part dilate and the blood flows there in greater abundance. If the irritation continues, or if it was originally severe, the flow of blood in the part soon begins to slacken. The leucocytes, by ameboid movements, migrate into the tissues; also

plasma and a small number of red corpuscles pass out of the blood-vessels. The tissues, being thus distended, lose their elasticity and this retards the absorption of the fluid. The condition gives rise to pain, heat, redness, swelling, and defective functioning. It may terminate in resolution or suppuration. For further description see Phagocytosis, Resolution, Suppuration.

inflate'. To distend with air or gas.

infla'tor. An instrument used for inflating.

inflec'tion. Bending inward.

inflex'ible. Incapable of being bent.

influ'ent. Flowing in.

influen'za, la grippe. An acute, infectious, epidemic disease caused by the *Bacillus influenza*. The nature of the disease varies. In some instances, it is the respiratory tract that is attacked, and there will be acute coryza and bronchitis, with marked prostration and debility. At other times intestinal symptoms predominate, and, at others, nervous. Complications and sequelæ, caused by the same bacillus, are common, especially pneumonia, otitis media, endocarditis, and appendicitis.

in'flux. The act of flowing in. That which flows in.

in'fra (Lat. *beneath*). A prefix used to denote situation beneath a part or organ.

infracos'tal (Lat. *infra* = beneath and *costa* = rib). Below a rib or the ribs.

infu'sible. That cannot be fused or melted.

infu'sion. (1) The pouring of liquid upon a substance. (2) The process of steeping a substance in liquid. (3) The solution resulting from steeping a substance in a liquid. (4) The introduction of fluid into a vein for therapeutic purposes.

infuso'ria. Microscopic animalcula that develop in organic infusions.

ingest' (Lat. *in* = in and *gerere* = to carry). To take into the stomach.

inges'ta. Food.

ingre'dient. A part or element of a compound.

in'guinal. Pertaining to the groin. **I. ring**, the space between the abdominal muscles through which the spermatic cord leaves the abdomen. It is a common location of hernias.

inha'lant. A medicine intended for inhalation.

inhala'tion. Drawing air or vapor into the lungs.

inhale'. To breathe in.

inher'ent. Innate, inborn, inseparable.

inher'ited. Obtained from an ancestor. **I. characteristics**, see Hereditary.

inhibi'tion (Lat. *inhibere* = to restrain). The repression or checking of a function by nerve-action.

inhib'itory. Pertaining to inhibition, having the power to inhibit.

ini'tial (Lat. *initialis* = pertaining to a beginning). Beginning, or entering upon.

inject' (Lat. *in* = into and *jacere* = to throw). To throw in. To introduce into.

injec'tion. (1) The act of introducing liquid into a part, as

the tissues, the rectum, or a blood-vessel. (2) The substance injected.

innerva'tion. (1) The distribution of the nerves in a part. (2) The function of the nervous system. (3) The nerve impulses sent to a part.

in'nocent (Lat. *in*=not and *nocere*=to harm). (1) Freedom from guilt. (2) Silliness. (3) Not harmful. **I. tumor**, see Tumor.

inno'minate (Lat. *in*=not and *nomen*=name). Without a name. **I. artery**, that arising from the arch of the aorta, ascending obliquely toward the right and dividing into the right subclavian and the right common carotid artery. **I. bone**, the hip bone; it includes the pubis, ilium, and ischium. **I. veins**, the two veins situated, one on each side, in the lower part of the neck and upper border of the thorax. They are formed by the union of the subclavian and internal jugular veins.

innox'ious (Lat. *in*=not and *noxious*=harmful). Not injurious.

inoc'ulable. (1) Capable of being inoculated. (2) Transmissible by inoculation.

inoc'ulate. To introduce a virus into any substance.

inor'dinate. Excessive. Not in order.

inorgan'ic. Devoid of organs or organized structure. **I. chemistry**, the chemistry of inorganic compounds; these with a few exceptions, do not contain carbon.

inoscula'tion (Lat. *in*=in and *osculare*=to kiss). The union of vessels by the mouth of one fitting into that of the other.

insaliva'tion. The mixing of food with saliva.

insalu'brious. Not sanitary.

insan'itary. Not healthful.

insan'ity. Disordered intellect.

insec'ticide. Any substance that will kill insects.

insen'sible. Without feeling. Devoid of consciousness.

inser'tion. (1) To put in or between. (2) That which is inserted. (3) The more movable attachment of a muscle.

insid'ious (Lat. *insidiæ*=an ambush). Deceitful. Lurking.

in situ in-se'-too (Lat.). In the usual place.

insola'tion (Lat. *in*=in and *sol*=the sun). (1) Sun-stroke. (2) Therapeutic treatment by exposure to the sun's rays.

insol'uble. That cannot be dissolved.

insom'nia. Sleeplessness.

inspira'tion. Drawing air into the lungs.

inspi'ratory. Pertaining to inspiration.

inspis'sate (Lat. *spissare*=to thicken). To render thick.

in'step. The upper side of the arch of the foot.

instilla'tion. The act of pouring in or of implanting by degrees.

in'stinct (Lat. *in*=in and *stingere*=to prick). A natural impulse which leads to action, but is not associated with reason and is not the result of previous education.

insuff'iciency. Want of capacity or strength.

insuffla'tion. The act of blowing a powder, vapor, etc., into a cavity.

in'sulate (Lat. *insulatus*=made into an island). To isolate.

To place within an insulator so as to prevent the discharge of electricity or heat.

in'sulated wire. A wire wrapped with silk or other material that will act as a non-conductor of electricity, in order to prevent the escape of the electric current.

in'sulator. Material that is a non-conductor of electricity so arranged as to insulate a body. Substances that can be used for such purposes are: dry air, shellac, sulphur, resins, guttapercha, caoutchouc, silk, dry fur, glass.

insusceptibil'ity. Not susceptible. Immune.

inte'gral (Lat. *integer* = whole). Complete. Whole. Unbroken.

integra'tion. The act of making whole. Assimilation.

integ'ument (Lat. *integumentum* = a covering). A covering. The skin.

in'tellect. The mind.

intel'ligence. Ability to know or understand.

intemp'erance. Lack of moderation.

intense'. Exceedingly strong in any respect.

inten'sive (Lat. *in* = in and *tendere* = to stretch). Increasing in strength or force.

in'ter. A Latin preposition signifying between or among.

intercel'lular. Between the cells.

intercos'tal (Lat. *inter* = between and *costa* = a rib). Between the ribs, as the i. muscles.

intermis'sion. Temporary cessation. A pause.

intermit'tent. Ceasing or relaxing for a time. **I. fever,** fever in which the daily fluctuation is marked and the minimum

temperature is normal or subnormal.

intermus'cular. Between the muscles.

interpella'tion. Interruption. Interference. Interposition.

interpose'. To place between.

intersect'. To cut into.

interspace'. An intervening space.

intersperse'. To scatter between.

inter'stices. The small spaces between the component parts of a body. Interspaces.

in'terval. (1) Lapse of time between two recurrences. (2) Space between two objects.

intervas'cular. Between blood-vessels.

intes'tine. The membranous tube, about 25 feet in length, extending from the stomach to the anus. **Large i.,** the five feet of intestine between the small i. and the anus. It comprises the cecum; ascending, transverse, and descending colon; sigmoid flexure; rectum. **Small i.,** that part of the tube between the stomach and cecum. It includes the duodenum, jejunum, and ileum.

in'tima (Lat. *innermost*). The innermost coat of the blood-vessels.

intol'erance. Lack of capacity to withstand or endure.

intoxica'tion (Gr. *toxikon* = poison). Poisoned. Drunkenness.

in'tra. A Latin prefix meaning within.

intramus'cular. In the substance of a muscle.

intrana'tal. During birth.

intranu'clear. Within a nucleus.

intra-oc'ular. Within an eye.

intra-o'ral. Within the mouth.

intra-u'terine. Within the uterus.

intrin'sic (Lat. *intrinsecus* = on the inside). Internal. Inherent. Genuine.

introsuscep'tion. See Intussusception.

introver'sion. Turning inside out.

intuba'tion. The introduction of a tube into the larynx.

intussuscep'tion. The slipping of a portion of the intestine into the part below it. The exciting cause is thought to be irregular peristalsis, in consequence of which part of the intestine becomes constricted while the adjoining portion is dilated.

inunc'tion. The application of an ointment by rubbing.

inva'ginated. Inclosed in a sheath.

in'validism. Constant ill-health.

inva'sion. The onset of disease. The period in febrile diseases in which the temperature gradually rises until it reaches what is ordinarily its highest point.

inver'sion (Lat. *in* = in and *vertere* = to turn). (1) The reversion of the normal position of an organ; *e. g.*, turning inward, inside out, etc. (2) The change of cane or similar sugars to glucose.

inver'sive. That which causes inversion.

in'vert sugar. A mixture of levulose and glucose.

inves'ture. To clothe. Clothing.

invet'erate. Confirmed. Chronic.

in vi'tro (Lat.). In a glass.

in vi'vo (Lat.). Within the living body.

invol'untary. Without intention.

involu'tion (Lat. *in* = in and *volvere* = to roll). (1) Turning or rolling inward. Infolding or rolling up. (2) The restoration of a part to its normal size after it has been abnormally enlarged; *e. g.*, the uterus after pregnancy.

involve'. To include.

i'odids. Compounds of iodine. **Potassium i.**, a compound of potassium and iodine. It is used as an alterative and antisyphilitic. Dose, 1-60 grains. It is given well diluted and, usually, only small doses are given at first and the quantity gradually increased.

i'odin. A solid non-metallic element obtained from sea-weed. It is soluble in alcohol and vaporizes readily into a beautiful violet vapor. It is used externally as a counterirritant and skin disinfectant. It is particularly valuable for the latter purpose because it penetrates the skin and thus accomplishes more than a surface disinfection. It is usually used in from 2-7 per cent. solutions.

i'odism. The condition produced by the long-continued use of iodine. The chief symptoms are: coryza, salivation, headache, sore throat, general malaise, digestive disturbances, and an eruption especially on the face and shoulders.

io'doform. A yellow, crystalline antiseptic powder made by heating iodine with potassium carbonate, alcohol, and water.

i'on (Gr. *ion* pr. par. of *eimi* = to go). Atoms or molecules

that carry an electrical charge. Elements set free by electrolysis. **Negative i.**, one charged with native electricity. **Positive i.**, one charged with positive electricity.

ip'ecac, ipecacua'nha. A drug obtained from the roots of *Ipecacuanha cephaëlis*. It is used, in small doses, as an antiemetic, a diaphoretic, and expectorant; and, in larger amounts, as an emetic. Dosage: fluid extract, $\frac{1}{2}$ -20 minims; powder, 20 grains; syrup, $\frac{1}{4}$ -2 drams; wine, 1-60 minims.

iras'cible. Irritable. Quick-tempered.

iridec'tomy. Excision of part of the iris.

i'ris (Gr. *rainbow*). The colored membrane in the front of the eye in the center of which is the pupil. It consists of exceedingly delicate connective tissue, numerous small blood-vessels, nerve-fibers, and a varying amount of pigment cells. The color of the iris depends upon the amount of pigment present.

iri'tis. Inflammation of the iris.

iron i'-ern, ferrum. A metallic element that occurs in nature in combination with many substances. It is found in minerals, in nearly all rocks and soils, in plants—especially some of the green vegetables, as asparagus, lettuce, and spinach, in the legumes and in fruit—in eggs, milk, and the body of animals. The human adult body contains about 3 grams of iron, the greater part of which is contained in the hemoglobin. It is found also in the chromatin substance of the cells. It is necessary for the formation of hemoglobin and for the oxygen-carrying

power of the latter. In animal and plant tissues the iron is in the form of complicated compounds that differ greatly from the inorganic combinations, and the way in which inorganic iron acts in the body when taken medicinally is still a matter of conjecture. A common view is that the organic iron compounds of food enter into, and are essential for, the production of hemoglobin and inorganic iron compounds act mainly by stimulating the function of the blood-making substances. Dosage of some of the common compounds: I. arsenate, $\frac{1}{16}$ - $\frac{1}{8}$ grain; i. bromid, 1-5 grains; i. chlorid, solution, 2-10 minims; tincture, 5-60 minims; i. and ammonium acetate (Basham's mixture), 1-4 drams; i. citrate, 1-10 grains; i. hypophosphate, 1-10 grains.

irredu'cible. Incapable of being reduced, *i. e.*, restored to a normal position or shape.

irreg'ular. Not uniform or according to rule.

irrespir'able. Not fit to be inspired.

irriga'tion. The flow of a liquid over a part or into a cavity or wound.

irritabil'ity. (1) The state of being easily provoked or irritated. (2) The property possessed by certain forms of matter, as nerve-tissue and muscle tissue, of responding to stimuli.

ir'ritant. An agent that produces irritation.

irrita'tion. Stimulation. Annoyance. Exasperation.

ischiopubic is-ke-o-pu'-bik. Pertaining to the ischium and pubes.

ischiorec'tal. Pertaining to the ischium and rectum.

is'chium, pl. **ischia**. The portion of the pelvis below the pubic bone.

ischu'ria (Gr. *ischo*=to check and *ouron*=urine). Retention or suppression of urine.

i'singlass. A gelatinous substance prepared from the swimming bladder of various species of fish.

island. An isolated structure. **I's of Langerhans**, irregular masses of cells, scattered through the pancreas, which are thought to secrete the internal secretion of the pancreas that is essential for the oxidation of glucose in the body. Destruction of these cells is one of the causes of diabetes.

i'so (Gr. *isos*=equal to). A prefix used to signify equality.

isochromat'ic (Gr. *isos*=equal and *chroma*=color). Of the same color.

isodynam'ic (Gr. *isos*=equal and *dynamis*=power). Having equal power or size.

i'solate. To separate from others.

i'somer. A substance composed of the same elements as another substance; the elements being present in the same proportion, but differently arranged within the molecules, so that the nature of the two substances is not entirely the same; *e. g.*, glucose and levulose are isomers, since their molecules consist of $C_6H_{12}O_6$ and the nature of the two sugars is not identical.

isom'erism. The quality of isomers.

isomet'ric (Gr. *isos*=equal and *metric*=measure). Of equal measure.

i'sopathy (Gr. *isos*=equal and *pathos*=suffering). The treatment of disease by the same kind of a virus as that causing the disease.

isoton'ic (Gr. *isos*=equal and *tonos*=tone). Of equal tone.

isthmus is'-mus. (1) A narrow strip of tissue connecting two parts. (2) A narrow passage between two cavities.

itch, sca'bius. A contagious disease excited by an animal parasite—the *Acarus scabiei*—and characterized by papules, vesicles, pustules, and intense itching along the parts where the organism burrows under the skin.

itin'erant (Lat. *itinerere*=to travel). Wandering. Not stationary.

i'tis (Lat. *itis*. Gr. *itis*). A termination used to indicate inflammation of the part to the name of which it is attached.

J

jal'ap. A drug obtained from the root of the *Ipomœa jalapa*. It is a drastic hydragogue cathartic and a cholagogue. It is usually used in combination with other drugs. Dosage: Extract, 1–5 grains; resin, 1–5 grains; compound powder—jalap and cream of tartar—15–60 grains.

jaun'dice. A yellow discoloration of the tissues and secretions with bile pigment. It is due to the improper discharge of bile into the intestine and its consequent reabsorption by the blood. The common causes of interference with the discharge of bile are (1) obstruction due to the presence of foreign bodies, such as stones, in the bile ducts, impacted

fecal matter, or an inflammatory condition in the duodenum at the opening of the duct; (2) abnormally thick bile resulting from such causes as inflammatory conditions in the liver or gall-bladder or an excessive destruction of the red blood-cells. For jaundice of infants see *Icterus neonatorum*.

jeju'nal. Pertaining to the jejunum.

jeju'num (Lat. *empty*). The portion of the small intestine between the duodenum and the ileum. It was so named because it is found empty after death.

joint. An articulation or junction between two bones. **Ball and socket j.'s**, freely movable joints in which a rounded head fits into a cup-shaped depression and is held in place with strong non-elastic ligaments, muscles, etc., *e. g.*, the hip and shoulder joints. **Condylloid j.'s**, those in which an ovoid head or condyle is received into an elliptical cavity in such a way as to permit of all movements except rotation, *e. g.*, the wrist. **Gliding j.**, one in which the articulating surfaces are nearly flat and the amount of movement between them is limited by ligaments or osseous processes, *e. g.*, the carpal and tarsal bones. **Hinge j.'s**, those in which the bones are held in position chiefly by strong side ligaments so that flexion and extension are the only movements possible, *e. g.*, the elbows, knees, and knuckles. **Immovable j.'s**, those in which there is no movement, as those of the head. **Pivot j.'s**, those in which one bone rotates upon another, the latter remaining stationary, *e. g.*, the

axis and atlas; the radius and ulna articulation just below the elbow. **Saddle j.**, that between the thumb and hand; it allows of all movements except rotation. **Slightly movable j.'s**, *e. g.*, between the bodies of the vertebra, the symphysis pubis, and the sacro-iliac articulation.

ju'gal (Lat. *jugum* = a yoke). Pertaining to the cheek bone.

jug'ular (Lat. *jugulum* = the collar bone, the throat). Of or pertaining to the throat. **J. veins**, large veins in the neck which return the blood from the head.

juices (Lat. *jus* = broth). The fluids of animal and plant tissues. **Digestive j.**, the saliva, gastric juice, pancreatic juice, intestinal juice or succus entericus, and the bile.

juxtaposi'tion (Lat. *juxta* = close and *ponere* = to place). The act of placing, or state of being near together.

K

K. (Lat. *kalium* = potassium). The chemical symbol for potassium.

ka. Abbreviation for cathode or kathode.

karyokinesis, *ka-re-o-kin-e'-sis*, **mito'sis** (Gr. *karyon* = a nut or kernel and *kinesis* = movement). Indirect cell-division, *i. e.*, division preceded by complicated changes in the nucleus of the cell. It is the most common form of cell-division and is the opposite of *akinesis*.

karyol'ysis (Gr. *karyon* = a nut and *lysis* = setting free). The pathological destruction of a nucleus.

kath'ode. See Cathode.

ka'tion. See Cation.

ke'lis, ke'loid, ke'los (Gr. *kele* = a tumor and *eidos* = form). A growth resulting from hypertrophy of the skin; it occurs most frequently on or around scars.

ker'atin (Gr. *keratos* = a horn). The hard substance which forms the basis of hair, feathers, nails, claws, horns, and epidermis. It resembles the proteins in chemical composition.

kerati'tis. Inflammation of the cornea.

kerato'ma. A tumor consisting of hard horn-like tissue. A callus.

kerato'sis. A wart or callus.

kerec'tomy. Excision of the cornea.

Kernig's Sign. One of the symptoms of meningitis. It consists of an inability to straighten the patient's leg completely while he is in the recumbent posture with his thigh flexed at a right angle with the pelvis.

ker'osene. A colorless oil-like hydrocarbon derived from petroleum. It is insoluble in water, moderately soluble in alcohol, very soluble in ether, chloroform, and benzene. It dissolves fats, iodine, wax, resins, and sulphur and can therefore be used to remove stains made with such substances. It is the cheapest and best illuminating liquid. A kerosene with a flash point lower than 100° F. cannot be used with safety.

ke'tone. Any compound consisting of the radical CO and two univalent hydrocarbons. Acetone is the most common ketone.

kid'ney. One of the two bean-

shaped glandular organs situated on either side of the spine, in the lumbar region. The kidneys secrete and excrete the urine.

kil'ogram. 1000 grams or 2.68 pounds troy.

kil'oliter. 1000 liters or 33.3171 cubic feet.

kil'ometer. 1000 meters.

kina'ses (Gr. *kinema* = a motion). Organic substances which activate zymogens or proferments, *e. g.*, the enterokinase of the intestinal juice which activates the trypsinogen of the pancreatic juice, changing it to trypsin.

kinemat'ics (Gr. *kinema* = a motion). The science which treats of the motion of bodies.

kinesal'gia (Gr. *kinema* = a motion and *algos* = suffering). Pain on muscular movement.

kinesiolo'gy. The study of gymnastic movements.

kinesip'athy, kinesither'apy. The treatment of disease by gymnastics.

kinet'ic. Relating to or producing motion. **K. energy,** the energy represented by matter in motion.

Klebs-Loeffler bacillus. The bacillus that is the active cause of diphtheria. It was so named from the men who discovered it.

knee cap. The patella. **K. jerk.** A jerk of the leg elicited by tapping lightly on the knee when the leg is flexed. When there are lesions in parts of the cord through which sensory and motor nerves concerned in the action pass, there will be no jerk, but lesions in parts of the cord or brain that have an inhibitory influence on certain reflex actions will result in an in-

crease in the force of the jerk. **Knock k.**, a deformity in which the knees come together while the ankles are apart.

kyphosis *ki-fō'-sis*. Humpback.

L

Labarraque *lab-ar-rak'*. A French chemist who lived 1777-1850. **L.'s solution**, a disinfectant and bleaching agent consisting of several chlorin compounds, chiefly sodium hypochlorite and sodium chlorid.

la'bia, sing. **la'bium** (Lat. the *lips*). The lips or lip-shaped parts. **L. majora**, two longitudinal folds of skin covering connective and adipose tissue that extend, one on either side of the opening of the vulva, from the mons Veneris to within about an inch of the anus of the rectum. **L. minora**, two longitudinal folds of mucous membrane extending on either side of the vulval opening, within the labia majora. Known also as the *nympha*.

la'bor. Childbirth. **Dry l.**, one in which the amniotic sac ruptures too early. **L., induced**, that brought on by artificial means. **Instrumental l.**, that facilitated by the use of instruments. **Missed l.**, that in which the fetus dies while in the uterus. **Postponed l.**, that delayed beyond nine months. **Precipitate l.**, that occurring with unusual rapidity. **Premature l.**, that occurring before the completion of the usual period of gestation, but after the fetus is old enough to live.

lab'oratory. A place where experimental and research work is done.

lab'yrinth. (1) An intricate series of passages. (2) The internal ear. **Bony l.**, the bony portion of the internal ear. **Membranous l.**, the membrane lining of the internal ear.

lac'erated (Lat. *lacerare*=to tear). Torn.

lac'inated. Torn irregularly, fringed.

lac'rimal, lachrymal (Lat. *lacrima*=a tear). Pertaining to the tears. **L. ducts**, the minute ducts leading from the lacrimal gland. **L. gland**, a small gland situated just within the orbit, at the upper and outer side. It secretes the tears, which then pass through the l. ducts to the eye. **L. sac**, the upper enlarged end of the nasal duct, through which the tears pass from the eye into the nose.

lacrima'tion. The secretion of tears. The act of weeping.

lacrimot'omy. Incision of a lacrimal duct or sac.

lac'tagogue, lactagog, galactagogue (Lat. *lac*=milk and *ago*=to lead). A drug or other agent that increases the flow of milk.

lactal'bumin. One of the proteins of milk. It is seen as a scum on the top of milk when the latter is heated above 70° C.

lac'tate. A salt of lactic acid.

lacta'tion (Lat. *lactare*=to suckle). The secretion of milk.

lac'teal (Lat. *lacteus*=milky). (1) Pertaining to milk. (2) One of the small lymph-vessels of the small intestine into which the chyle passes. The lacteals were so named, because the chyle is of a milky appearance.

lac'tic acid. An acid produced by the fermentation of lactose. The souring of milk is due to this acid.

lac'tifuge (Lat. *lac*=milk and *fugare*=to put to flight). Any agent which diminishes the secretion of milk.

lactobac'illin. A preparation of a pure culture of lactic-acid bacteria that is used to cause lactic-fermentation in milk. The milk thus soured is now much used in the treatment of putrefactive conditions in the intestine, because lactic acid bacilli prevent the growth and activity of those promoting putrefaction.

lac'tose. Sugar of milk. Lactose is not as sweet and does not ferment as easily as cane sugar.

lacu'na (Lat. *lacunæ*=a hollow). A small opening or depression.

lac'us (Lat. a *lake*). A small cavity or depression. **L. lacrimatus**, the small triangular space between the two eyelids at the inner canthus.

la grippe. See Influenza.

laking. The removal of hemoglobin from the red blood-corpuscles. See Hemolysis.

la'ky-blood. Dark transparent blood in which the hemoglobin has been set free from the red-cells.

lamel'la, pl. *lamellæ*. A thin plate or scale such as those which divide the Haversian canals.

lam'ina. A thin plate. **Vertebral l.**, one of the plates of bone uniting the arch and body of a vertebra.

lam'inated (Lat. *lamina*=a thin plate). Arranged in thin layers.

laminec'tomy, *lamnectomy*. Removal of a lamina of a vertebra.

lamp'black. An impure finely powdered carbon derived from burning oils.

lan'cet. A small pointed two-edged knife.

lancina'ting. Cutting or darting, as a pain.

lang'uid. Feeble, faint.

lan'olin. Purified wool-fat; it is used as a base for ointments.

laparec'tomy (Gr. *lapara*=the flank and *tome*=a cutting). Surgical excision of a part of the abdominal wall to repair conditions arising from a too great laxity of the wall.

lap'aro-enteros'tomy. The making of an artificial opening into the intestine through the abdominal wall.

laparot'omy. Abdominal incision.

lap'is. Latin for stone.

lard. The fat of swine melted and separated from the flesh.

larda'ceous. (1) Resembling lard. (2) Containing a lard-like substance that occurs in amyloid degeneration of tissue.

lar'va, pl. *larvæ* (Lat. a *ghost*). The condition of an immature insect after it issues from the egg. It is usually in the form of a caterpillar, grub, or maggot.

lar'vicide. An agent that will destroy insect larvæ.

laryngeal lar-in-je'-al. Pertaining to the larynx.

laryngi'tis. Inflammation of the larynx.

laryng'oscope. An apparatus used when examining the larynx. It consists of a small mirror on a slender handle which is introduced into the

back of the throat and a larger concave mirror that is either fixed on a stand or arranged so that it can be suspended from the forehead of the examiner. It serves to reflect a light placed opposite it into the throat.

larynx. The upper part of the trachea. It is the organ of voice.

las'situde. Weakness. Depression.

la'tent. (1) Concealed. Not evident. (2) Potential. **L. energy,** see Energy. **L. heat,** see Heat. **L. period,** the period of incubation.

lat'eral (Lat. *lateris* = a side). Of, or pertaining to, the side.

lat'ero. A prefix signifying side.

laud'able. Commendable.

laud'anum. See Opium.

laughing-gas. See Nitrogen monoxid.

lavage *lav-ahzh'*. (Lat. *lavare* = to wash). The washing out of an organ. The term is used more especially for the washing or irrigation of the stomach.

law. (1) A decree or rule. (2) A proven fact regarding a force, tendency, etc. Facts which have been proved by careful experiments to hold good in all cases. **L. of Avogadro,** equal volumes of gases, with the same temperature and under the same pressure, contain an equal number of molecules. **L. of Behring,** the blood or serum of an immune animal will, if transferred to another subject, render the latter immune. **L. of boiling.** (1) Under a given pressure, every liquid has a definite boiling point. (2) Light liquids, as alcohol, boil below 100° C. (alcohol boils at 80° C.), heavy liquids boil at

higher temperatures (mercury boils at 350° C.). (3) When the boiling point is reached, the temperature remains constant unless the pressure is increased.

L. of Boyle, the volume of a gas is inversely proportional to the pressure under which it is measured, provided the temperature of the gas remain constant. **L. of Charles,** for every degree the temperature of a gas rises above zero the volume of the gas is increased by $\frac{1}{273}$ of the volume which it occupies at zero; likewise for every degree the temperature of a gas falls below zero the volume of the gas is decreased $\frac{1}{273}$ of the volume which it occupies at zero, provided in both cases that the pressure to which the gas is subjected remains constant. **L. of conservation of energy,** energy can be changed from one form to another, but it cannot be created or destroyed. **L. of conservation of matter,** matter can be changed from one form to another, but it cannot be created or destroyed. **L. of gravitation,** all bodies attract each other with a force that is directly proportional to their masses and inversely proportional to the square of their distance apart. **Jackson's l.,** the nerve functions that are developed latest are the earliest to be destroyed. **Koch's l.'s to prove the pathogenicity of a microorganism,** (1) the organism must be found in the tissues, blood, or secretions of a person or animal sick or dead of the disease; (2) the organism must be isolated and cultivated from these same sources; it must also be grown for several generations in artificial culture media; (3) the pure cultures, when thus obtained,

must, on inoculation into a healthy and susceptible animal, produce the disease in question; (4) the same micro-organism must be found in the tissues, blood, or secretions of the inoculated animal. **Metchnikoff's l.**, when the body is attacked by bacteria, the polynuclear and large mononuclear leucocytes become protective phagocytes. **Pascal's l.**, pressure applied to liquid at any point is transmitted equally in all directions. **L.'s of melting or fusion:** (1) the fusing temperature is always the same for the same substance, providing there is no change in the degree of pressure; (2) the temperature during fusion remains constant until the whole substance is melted.

lax'ative. A mild cathartic.

la'yer. A stratum or row of nearly uniform thickness.

lazaret', lazaret'to. A hospital for those suffering with contagious diseases.

lb. (Lat. *libra*). Abbreviation for pound.

leach. To remove soluble substances from insoluble—as lye from wood ashes—by allowing water to percolate through a mass.

lead. A metallic element. **L. acetate**, a salt of lead and acetic acid; given internally, it acts as an astringent and produces constipation. Dose, $\frac{1}{2}$ -2 grains. **L. colic**, colic due to lead poisoning. This occurs most frequently in painters and others whose occupation entails the use of substances containing lead, and as the result of eating food put up in cans soldered with lead or cooked in utensils repaired with lead. **L. palsy**,

paralysis of the muscles of the arm due to lead poisoning. **Sugar of l.**, lead acetate.

lec'ithin. A compound of glycerophosphoric acid, fatty acids, and cholin—a nitrogenous base. Lecithin is widely distributed in the tissues and liquids of the body, especially in the white matter of the nervous system. It is thought to play an important, though as yet unknown, part in cell metabolism. Egg yolk contains a larger amount than other foods.

leech. An aquatic worm, certain varieties of which are used to draw blood from congested areas.

leg. One of the lower extremities, especially the part between the knee and the foot.

legit'imacy. Born in wedlock.

legu'min. A protein substance that resembles the casein of milk. It is found in the seeds of certain plants, as peas, beans, lentils, etc.

lemniscus lem-nis'-kus. A band of white nerve matter on the outer surface of the peduncles of the cerebellum.

lens. A transparent substance, usually glass, bounded by two curved surfaces or by one curved and one plain surface. **Biconcave l.**, **concavoconcavo l.**, a lens that is concave on both surfaces. **Biconvex l.**, one that is convex on both surfaces. **Bifocal l.**, one with two foci. **Compound l.**, one made up of two or more lenses. **Concave l.**, one thinner in the center than at the edge. Called also a diverging lens, because it diverges rays of light and prevents their coming to a focus. **Convex l.**, one thicker at the center than

at the edge; it causes oblique rays of light to converge, and thus come to a focus. **Convexoconcave l.**, one that is convex on one side and concave on the other. **Crystalline l.**, the lens of the eye. (See Eye.) **Planoconcave l.**, one having one flat and one concave surface. **Planoconvex l.**, one having one flat and one convex surface.

lentic'ular. Pertaining to a lens.

lenti'go. Small pigmented spots on the skin, such as freckles.

lep'er. One suffering with leprosy.

lep'rosy. A chronic, communicable disease characterized by cutaneous and other lesions.

leptomeningi'tis (Gr. *lepto* = small and *meninges* = a membrane). Inflammation of the pia and arachnoid membranes. See Meningitis.

le'sion (Lat. *lædere* = to hurt). Any wound or abnormal structural tissue change due to disease or injury.

le'thal. (Lat. *letum* = death). Deadly.

leth'argy (Gr. *lethe* = the river Lethe—forgetfulness). Drowsiness. Inaction. Stupor.

leucin lu'-sin. One of the end-products of protein decomposition.

leucocyte lu'-kō-sit. See Leukocyte.

leuke'mia (Gr. *leukos* = white and *haima* = blood). A fatal disease characterized by an excessive decrease in the number of red cells and increase in the number of leucocytes in the blood, a diseased condition of the spleen and lymphatic glands, and the symptoms of pernicious anemia. **Myelogenous l.**, that in which the bone-marrow is diseased.

leu'kocyte, leucocyte. A colorless, granular, nucleated cell capable of ameboid movements. Of this nature are the white blood corpuscles, and lymph-corpuscles. These vary in size from 0.005 to 0.015 mm. in diameter. They, also, vary somewhat in structure and differently constituted ones are known by different names. The leukocytes protect the body from foreign organisms, as bacteria—see Phagocytes;—they aid in the absorption of fats and proteins from the intestine, and they assist in the coagulation of blood—see Coagulation—and in resolution following inflammatory conditions—see Resolution. **Mononuclear l.'s**, those in which the protoplasm is comparatively clear and the nucleus large and oval in shape. There are both large and small mononuclears. **Myelocytes**, leukocytes with round nuclei; there are both coarse and fine granular myelocytes. They are normally found only in the bone-marrow. **Poly-morphonuclear l.'s**, leukocytes with nuclei of various shapes; there are both finely granular and coarsely granular polymorphonuclear l.'s. The former are known also as *neutrophiles* because their granules are stained by neutral dyes, and the latter as *eosinophiles* because their granules are stained by eosin.

leukocyto'sis. An increase in the number of leukocytes in the blood. Normally there are between 5000 and 10,000 leukocytes in each cubic millimeter of blood, but in certain diseases, as those due to invasion by pus-producing bacteria and pneumonia, the number is, usually, temporarily greatly increased. This

increase is one of nature's means of protecting the body and a large increase shows both that the infection is severe and that the body is making a vigorous fight against it. A low leukocyte count, when there is a severe infection, in diseases usually attended by leukocytosis, generally indicates that the patient is in a very debilitated condition. The reason why some diseases due to germ infection, as typhoid fever and tuberculosis, are not attended by leukocytosis is not known.

leuko'ma, leuco'ma (Gr. *leuko-ma* = whitened). A white thickening of the cornea of the eye.

leu'komain. A class of nitrogenous alkaloids produced in living tissues in the course of metabolism. Examples are adenin, hypoxanthin, and xanthin.

leukomyeli'tis. Inflammation of the white nerve tissue of the spinal cord.

leukope'nia. A decrease in the number of leukocytes in the blood.

leukorrhagia *lu-kor-ra'-je-ah* (Gr. *leuko* = white and *rheo* = to flow). A profuse vaginal discharge.

leukorrhe'a. A white, viscid vaginal discharge.

leva'tor. A muscle which serves to produce elevation of a part.

levor'otatory (Lat. *laevus* = left and *rotare* = to turn). Rotating polarized light rays to the left.

levover'sion. Turning to the left.

le'vulose (Lat. *laevus* = left). Fruit sugar. It resembles glucose or dextrose, but it turns polarized light rays that are

directed upon it to the left instead of to the right.

Leyden li'-den. A German physician; lived 1832-1910. **L. battery,** a number of connected Leyden jars. **L. jar,** a glass jar, the inside of which is covered with tin-foil or similar substance to fit it for the temporary accumulation of electricity.

li'bra. Latin for balance and pound.

licen'tious. Unrestrained. Wanton. Immoral. Sensual.

lichen li'-ken. (1) An order of plants such as the algæ and fungi. (2) A popular, inflammatory skin eruption.

liche'noid. Resembling lichens.

lic'orice. See Glycyrrhiza.

Lieberkühn's Crypts. Small follicles or glands, in the wall of the small intestine, which secrete the intestinal juice.

li'entery (Gr. *leion* = smooth and *enteron* = intestine). Diarrhea in which there are particles of undigested food in the stools.

lig'ament (Lat. *ligare* = to bind). Strong, pliable, bands of fibrous tissue which serve to hold bones together at their articulations.

li'gate (Lat. *ligare* = to bind). To tie or bind.

lig'ature. Material used for ligating.

light. Vibrations in the ether which give rise to waves that are of proper length to excite the optic nerve and cause the sensation of light. **Color of l.,** see Color. **Diffusion of l.,** the scattering of light by reflection and refraction. **Dispersion of l.,** the separation of white light into its component colors; *e. g.,* the colors seen when light is passed through a

prism; also, the rainbow produced by the dispersion of sunlight by raindrops. Light is thus dispersed because when it enters a substance of different density from the air it is refracted and the color waves, being of different lengths, become separated when they enter a medium such as the prism. **Polarized l.,** light, the waves of which are made to follow in one direction. (See Polarization.) **Reflection of l.,** the turning back of light from a surface that it strikes, but does not penetrate; *e. g.*, when a beam of light enters a darkened room through a small opening and strikes a mirror, a reflected stream of light will be seen traveling along a definite path. This is called *regular reflection*. If, however, the light strikes a rougher surface than the mirror—*e. g.*, a white sheet of paper—it will be reflected in a diffuse manner; for all rough surfaces as well as all inequalities in the atmosphere serve to diffuse light; were this not the case, it would be dark everywhere except in the direct path of light from some luminous body. It is because opaque objects reflect some of the light which strikes them that they are visible. **Refraction of l.,** the deviation of light from its course. This is demonstrated by placing a straight stick obliquely, partly in air and partly in water, when it looks like a bent stick. Rays of light are bent in this way, because light travels at a different rate in media of different densities; thus, it can pass through water at only three-fourths the speed with which it travels through the air, and when a ray strikes a body of water obliquely all

portions of its wave front will not enter the water at the same time; *e. g.*, in Fig. 3 the short parallel lines represent the wave front of a beam of light entering obliquely from air into water, one part (a) reaches the water before (b) and, as it travels more slowly than before, it can go only as far as (c) while (b) is going to (d). Thus the beam is bent. When a beam of light strikes the water vertically, it is not refracted, because the whole



Fig. 3

front of the light-wave enters the water at the same time. Light is refracted also when it passes through glass or the refractory apparatus of the eye, and the degree and nature of the refraction differ when the glass consists of a convex or concave lens. **Sources of l.,** these are the sun, chemical and mechanical energy, and electricity. Whenever the temperature of a body is so high that the vibration of its molecules creates vibration in the ether capable of affecting the sense of sight, the body is said to be luminous. **Velocity with which l. travels through air,** 180,000 miles per second. **light'ening.** The decrease in the distention of the abdomen which occurs a few days before labor, due to descent of the fetus into the pelvic brim. **lily of the valley.** See *Convallaria*.

limb. An extremity. An arm or leg.

lim'bus. The edge or margin.

lime. Calcium oxid, CaO .

Lime is prepared by heating calcium carbonate—limestone—in kilns. **Chlorinated l.,** see Chlorin. **Milk of l.,**

whitewash; it is made by adding four parts of water to one of slaked lime. **Slaked l.**

calcium hydroxid Ca(OH)_2 ; this is made by the addition of water to lime. Lime water, a dilute form of calcium hydroxide, is made by adding water in the proportion of 1 ounce of water to $\frac{3}{4}$ of a grain of lime, letting this stand for some time, and then pouring the water from the sediment.

Syrup of l., a mixture of lime water and syrup; dose, 1 dram. The chief therapeutic uses of lime are as a disinfectant and an antacid. Five per cent. solutions of lime will kill non-spore-bearing organisms in five minutes and spores in one hour, if the substance to be disinfected is thoroughly saturated with the lime.

line (Lat. *linea*). A stripe-like mark. **L. alba,** the tendinous line extending down the center of the abdomen from the ensiform cartilage to the pubic bone. **L. albicantes,** striæ gravidarum; *i. e.*, the shining, whitish lines upon the abdomen caused by distention such as occurs during pregnancy.

ling'ua. Latin for tongue.

ling'ual. Pertaining to the tongue.

lin'iment. A medicinal preparation for external use, consisting of strong drugs in an oily base.

lin'seed. The seeds of flax.

lint. (1) An absorbent material made by scraping old linen.

(2) A soft woven material that somewhat resembles Canton flannel.

lip'ase, steap'sin (Gr. *lipose* = fat). An enzyme that helps in the decomposition of fats. In the body it occurs more especially in the pancreatic juice. It is found also in certain plants.

lip'o'ma. An innocent fatty tumor that forms most frequently under the skin as a soft, lobulated, painless swelling which can be easily shelled out.

liquefac'tion (Lat. *liquere* = to flow and *facere* = to make). Melted or dissolved. The act of making liquid.

liquor lik'-ker. (1) An aromatic, alcoholic beverage. (2) A liquid. **L. amnii,** the fluid contained within the amnion, in which the fetus floats.

lis'terine. A mixture of boric acid, benzoic acid, thymol, eucalyptol, oil of gaultheria, oil of peppermint, tincture of baptista, alcohol, and water. It is used as a gargle and mouth wash.

liter le'-ter. One thousand cubic centimeters, or 33.81 ounces apothecaries' measure.

lith'agogue (Gr. *lithos* = a stone and *ago* = to lead). A medicine that aids in the expulsion of calculi.

lith'ate. An urate.

lith'ia, lithium. An alkaline element that, in the form of a carbonate or other salt, is found in several mineral waters. The salts are used as diuretics and they are solvents of uric acid; for the latter reason, they interfere with the deposit of substances which

form calculi and which cause stiffening of the joints in rheumatism and gout.

lithi'asis (Gr. *lithos*=stone). (1)

The formation of calculi. (2)

A tendency to gout.

lith'ic. Pertaining to a calculus or to uric acid. **L. acid**, uric acid.

lithot'omy (Gr. *lithos*=a stone and *temnere*=to cut). An incision into the bladder for the removal of a stone. **L. position**, the position of a patient flat on the back with the legs and thighs flexed and the thighs widely separated.

lit'mus. A blue pigment obtained from certain lichens. It is turned red by acids and the red color again becomes blue when the litmus is treated with an acid. **L. paper**, paper impregnated with litmus.

live'do. A bluish spot on the skin or in a tissue. It is usually due to a passive congestion.

liv'er. The large glandular organ in the upper part of the abdominal cavity, directly below the diaphragm, in front of the right kidney, the upper part of the ascending colon, and the pyloric end of the stomach. It secretes the bile; it changes the glucose, brought to it from the intestine by the portal vein, into glycogen and reconverts the glycogen into glucose when the latter substance is needed for oxidation in the tissues; it acts as a storehouse for a large portion of the glycogen; it forms the urea from nitrogenous waste matter and it prepares for elimination by the kidneys poisonous substances brought to it by the blood, both from the intestine, where they have

been formed as the result of the putrefaction of food, and from the tissues, where they have arisen as the result of metabolism.

liv'id (Lat. *liveo*=to be bluish). Of a bluish color. Discoloration from the effects of a bruise or congestion.

lixivation. The process of separating a soluble from an insoluble substance by washing and filtering, *e. g.*, the leaching of ashes to obtain lye.

lobe'lia. A drug obtained from the leaves and tops of the *Lobelia inflata*. It is a motor-depressant and anti-spasmodic. Dosage: fluid-extract, 1-5 minims; tincture, 10-20 minims.

lob'ular. Pertaining to a lobule.

lob'ule (Lat. *lobus*=a lobe). A small lobe or natural division of a lobe.

lo'cal. Not general; restricted to a part or area.

lochia *lo'-ke-ah*. The discharge from the genital canal during several days subsequent to delivery. **L. alba**, the white or almost colorless discharge that is normal after the first week. **L. rubra**, the bloody discharge that is normal during the first week following childbirth.

lochiomet'ra. The retention of the lochia. This is usually due to a relaxed condition of the uterus and is very serious, for the lochia will be absorbed by the blood and toxemia is likely to result.

lochiorrh'e'a. An excessive lochial discharge.

locomo'tion (Lat. *locus*=place and *movere*=to move). Movement.

locomo'tor atax'ia. See Ataxia.

lor'do'sis (Gr. *lordos*=bent supinely). Curvature of the spine, in which the convexity of the curve is forward.

lo'tion. A medicated liquid preparation used as a wash.

louse, pl. **lice**. See *Pediculus*.

lou'siness. Infected with lice.

loz'enge. A medicated tablet that is held in the mouth until dissolved.

lu'brate. To make smooth.

lu'cid. Clear. **L. interval**, an interval in the course of delirium or insanity in which the mind becomes clear.

lumba'go (Lat. *lumbus*=the loin). Muscular pain or neuralgia in the lumbar region.

lum'bar (Lat. *lumbus*=loin). Pertaining to the loins. **L. puncture**, the introduction of a long, hollow needle through the back and into the spinal canal, between the vertebra, for the purpose of removing the excess cerebro-spinal fluid caused by meningitis.

lum'bricoid (Lat. *lumbricus*=earthworm and Gr. *eidos*=form). Like an earthworm. *Ascaris lumbricoides*, see *Ascaris*.

lu'men, pl. **lumina** (Lat. *light*). The space inside a tube.

lu'nacy (Lat. *luna*=moon). Insanity. The term was adopted in olden days because it was thought that the moon caused insanity.

lu'natic. One affected with lunacy.

lung. One of the two main organs of respiration in which the blood gives up carbon dioxid and obtains oxygen. Except for the space occupied by the heart, blood-vessels, lymphatics, air passages, and esophagus, the thoracic cavity

is filled by the lungs. These organs are of an exceedingly elastic substance that consists principally of the bronchioles and their terminations—the infundibula and alveoli—innumerable blood-vessels, lymphatics, and nerves held together with delicate elastic tissue and covered by a serous coat which is derived from the pleura.

lu'pus (Lat. *wolf*). A tubercular disease of the skin and mucous membrane.

lying-in. The puerperal state; *i. e.*, the time immediately following childbirth. **L. fever**, fever following childbirth.

lymph limf (Lat. *lymph*=water).

A colorless or slightly yellow-colored fluid, that is derived from and, with a few exceptions, resembles blood. The essential differences between the two fluids are: (1) An absence in the lymph of erythrocytes and blood-plates. (2) A lower content of solid matter. (3) A higher per cent. of fat, especially in the lacteals. (4) Lymph coagulates more slowly and less firmly than blood. Lymph serves to supply the tissues with nourishment and it collects and carries away in the lymphatic vessels the waste matter from the tissues. It is contained in the lymph spaces in the tissues and in the lymphatic vessels.

lymphangi'tis. Inflammation of any of the vessels or glands of the lymphatic system.

lymphat'ic. (1) Pertaining to, or containing, lymph. (2) Of a phlegmatic temperament. **L. ducts**, two large ducts resulting from the converging of all the smaller lymphatic vessels. One, the *right lymph-*

atic duct is about one inch in length and opens into the right innominate vein at the junction of the right internal jugular and right subclavian vein. It receives the contents of the vessels coming from the right side of the head, neck, and chest, the right side of the heart and the right arm. The other duct, the *right lymphatic* or *thoracic duct*, is in the adult about 15-18 inches in length; it begins on a level with the second lumbar vertebra, empties into the left innominate vein and receives the contents of the veins from all other parts of the body except those mentioned above. **L. glands**, or **nodes**, small round or oval bodies situated along the course of the lymph vessels which serve as sieves, for they hold foreign substances, as bacteria, absorbed by the blood and lymph, in the meshes of their tissue until they have been destroyed by the phagocytes. Also, it is thought, the formation of leucocytes may take place to some extent in these glands. **L. spaces**, minute irregular spaces, present in nearly all the tissues of the body, into which water and nutrient material pass from the blood and from which waste matter from the tissues passes into the lymphatic vessels. The principal forces concerned in the flow of lymph into and from the lymph spaces are: (1) the high pressure under which the blood is in the capillaries, owing to the small size of those vessels; (2) the force of diffusion owing to differences in the chemical composition and specific gravity of the blood in the capillaries and in the lymph; (3) the permeable nature of the capillary walls;

(4) the greater pressure of the lymph in the lymph spaces than in the lymph vessels, the suction present in the lymph vessels, due to the lower pressure in the ducts than in the smaller vessels; (5) muscular movements of all kinds; (6) the action of the heart. **L. vessels**, the vessels through which the lymph flows. Their structure is similar to that of the capillaries and veins of the blood-vascular system.

lymph'atism. An abnormal condition characterized by enlargement of the lymphatic organs, which interferes with their proper functioning so that persons with lymphatism are very susceptible to infections of all kind. Chronically enlarged tonsils is a form of local lymphatism and, in such case, the tonsils become a source of danger as they harbor germs which they cannot destroy and which will therefore pass, from the tonsils, *via* the lymph vessels, into the general circulation.

lymph'ocyte. Small, mononuclear leucocytes. They were called lymphocytes because they were thought to be formed in the lymph glands, but it is now thought that they are formed principally in the bone marrow.

lymph'oid. Of the nature of lymph.

ly'sin. Any antibody, such as hemolysin, that causes the disintegration of cells.

ly'sis (Gr. *lyo*=to loose). (1) The gradual decline of the symptoms of a disease. (2) The action of a lysin.

ly'sol. One of the cresol disinfectants. It consists of cresols (coal-tar derivatives) and

potash soaps. It is used in solutions of from $\frac{1}{4}$ to 3 per cent. A 3 per cent. solution will kill most non-spore-bearing germs in 5 minutes.

M

m. An abbreviation for mixture and minim.

macerate *mas'-er-āt.* To soften a substance by steeping it in a liquid.

macro *mak'-ro* (Gr. *makros* = large). A prefix signifying large.

mac'roblast (Gr. *makros* = large and *blastos* = a germ). An abnormally large nucleated red blood-cell, known also as a *macrocyte* and *megaloblast*. Such cells are found in the blood in pernicious anemia.

macrocythe'mia. The presence of macrocytes—macroblasts—in the blood.

mac'ula (Lat. *a spot*). Discolored spots on the skin or on a membrane.

macula'tion. The formation of spots.

mad. (1) Insane. (2) Affected with hydrophobia.

mad'der. A red dye.

Magendie *ma'-jen-dē.* A French physiologist, 1783-1855. **M.'s solution.** See Morphine.

magne'sia. Mg.O. An oxide of magnesium.

magne'sium. A white metallic element that is very common in nature, being a constituent of many rocks and also occurring in the form of soluble salts in mineral springs and salt deposits. Magnesium salts for medicinal purposes are obtained from these sources and they are also prepared by the combination of various acids—such as sulphuric

and citric—with magnesium. These salts have antacid, diuretic, and purgative qualities. Some of those in common use are **M. citrate**, dose 6-12 ounces. **M. sulphate** (Epsom salts) dose, $\frac{1}{2}$ -1 ounce. Effervescent m. sulphate, dose, 1-4 drams.

magnet. Iron that will attract other pieces of iron and has magnetic polarity; *i. e.*, its poles or ends will always point in the same direction, viz., toward either the north or south pole. The property of magnets was first discovered in an oxid of iron found in various parts of the earth. This was called magnetite or loadstone. Magnets can be made by rubbing iron or steel (iron hardened by the presence of carbon) with a magnet or by coiling a wire round them in a helix and sending an electric current through the wire. The harder the iron the more difficult it is to magnetize it, but the better it will retain its magnetism. **Permanent m.**, one in which the magnetic properties are permanent. **Temporary m.**, a substance that has magnetic properties only while it is in contact with a permanent magnet or during the passage of an electric current.

mag'num, pl. **magnus** (Lat.). Great, large.

maim. To disable.

maize. Indian corn. A cereal plant.

make. To start the flow of an electric current.

mal'ady. Any disease or illness.

malaise *mal-āz* (French). A general feeling of illness or discomfort.

mal'ar (Lat. *mala* = cheek). Pertaining to the cheeks. **M. bones**, the two cheek-bones.

mala'ria. An endemic, infectious disease caused by a unicellular animal organism of which there are three slightly different varieties, all of which are classed as the *plasmodium malariae*. They are transmitted from those suffering with the disease, by a species of mosquito—the female of the *anopheles*. When the malarial organisms are injected into the blood by a mosquito they make their way into the red blood-corpuscles. Here they grow, and, after a few hours, the number depending upon the variety and number of the organisms, they split up into several smaller ones, which break out of the corpuscles into the blood, where many of them die. Those which survive enter other blood-corpuscles and the cycle is repeated. When the organisms break from the corpuscles the patient has a chill. Malaria is characterized by paroxysms of chill, fevers and sweating, which occur at definite intervals, and an enlarged spleen. **Estivo-autumnal m.**, a serious form of malaria common in tropical countries; the fever is remittent instead of intermittent, the chills are less marked, but there is a very rapid destruction of red blood-cells, excessive congestion of the spleen, and sometimes of other organs, and toxemia may be extreme. **Pernicious m.**, a very fatal form of malaria, usually the result of bad infection by the estivo-autumnal parasite. It is known also as *black water fever*, because of the dark color of the urine resulting from the large quan-

ties of hemoglobin discharged in it. **Quartan m.**, that due to infection by the quartan variety of the plasmodium *malariae* in which the chills occur after intervals of two days. **Quotidian m.**, that due to infection by two groups of tertian parasites or three of quartan, in which the chills occur every day. **Tertian m.**, that due to infection by the tertian parasite, in which the chills occur every other day.

mala'rial. Pertaining to malaria. **M. cachexia**, chronic malarial poisoning.

malforma'tion. Badly formed.

ma'lic acid. An acid found in sour apples.

malign' (Lat. *maligno*). Unfavorable. Pernicious.

malig'nant. Virulent. Likely to have a fatal issue.

malingerer *mal-in'-jer-er*. One who pretends to be ill or injured.

malleable. Pliant, susceptible of being shaped or spread by beating as with a hammer.

malle'olus, pl. **malleoli** (Lat. *little hammer*). A process of bone the shape of the head of a hammer. **External, lateral, or outer m.**, the lowest point of the fibula. **Inner or medial m.**, the lowest point of the tibia.

mal'leus (Lat. *hammer*). One of the small bones of the middle ear.

malposi'tion (Lat. *mal* = bad). Out of position.

malprac'tice. Practice contrary to good judgment, whether from ignorance, carelessness or a wrong motive.

malpresenta'tion. An abnormal presentation of a fetus.

malt. Grain, usually barley, that is steeped in water,

fermented, and dried. This treatment changes the starch of the grain to dextrine and maltose and there is also present a ferment known as *diastase*, that is contained in barley, which aids in the fermentation and digestion of starch. Malt is used in brewing ale, stout, beer, and porter, and in the distillation of whiskey. Some malt preparations are used as food.

Mal'ta fever. An acute endemic disease found chiefly in cities bordering the shores of the Mediterranean. It is characterized by frequent chills, a high, but intermittent, temperature, excessive weakness, and a tendency to frequent relapses.

mal'tase. An enzyme which changes maltose to dextrose. It is contained in the saliva and the intestinal juice, and in many plants.

mal'tose. Malt sugar. One of the forms through which starch passes in the process of digestion.

mam'ma. Latin for breast.

mamma'lia. The class of animals which suckle their young.

mam'mary. Pertaining to the mamma or breast.

man'dible. The lower jawbone.

man'ganese. A metal element that resembles iron in appearance, but is harder, less fusible, and more readily acted upon by air and moisture. It is readily dissolved by acid, forming manganous salts. Of these, manganese sulphate and potassium permanganate are the two most commonly used for therapeutic purposes. The permanganate is a powerful antiseptic, an oxidizing

agent and a deodorant. It is used in one per cent. solution as a mouth wash, gargle, and for vaginal douching, and in from 1-3 per cent. solutions as a skin disinfectant. As it penetrates the skin in a way that few other disinfectants do, it is very valuable for the latter purpose. It is readily reduced and rendered inert by organic matter and is therefore not of use for the disinfection of excreta. Taken internally, both of these salts have much the same effect as iron. Dosage: manganese sulphate, 2-5 grains; potassium permanganate, $\frac{1}{2}$ -2 grains, it should be well diluted with *distilled* water.

ma'nia (Gr. *madness*). A form of insanity characterized by intense frenzy or exalted, but perverted, mental activity.

man'ikin. A model of the human body.

manipula'tion. Handling or working upon with the hands.

manom'eter. An instrument used to measure the pressure of liquids or gases.

man'ual (Lat. *manus* = hand). Relating to, or performed by, the hands.

maras'mus (Gr. *marasmos* = decay). A functional disease, common among infants living in unsanitary surroundings who are given food poor in quality or in great quantities. It is characterized by an inability to assimilate food so that, though the appetite is insatiable, there is progressive emaciation and debility. The stools contain much unchanged food and their bulk is greatly increased.

mar'row. A soft, fat-like substance contained in the medullary canal of the shafts of the

long bones and in the open spaces of the cancellous tissue of bones. It consists principally of a meshwork of fibrous tissue, with blood-vessels, marrow-cells, fat-cells, and red blood-cells. The marrow in the long bones contains a greater amount of fat than that in the cancellous tissue and is yellow in color. That in cancellous bone, especially in the bones of the ribs, is highly vascular and is of a pink color. It is in this marrow that the red blood-cells are thought to be formed from large nucleated red corpuscles called erythroblasts. Marrow serves also as a source of nourishment for the bone and to support blood- and lymph-vessels and nerves.

mask. A cover for the face. To hide.

massage *mas-ahzh'*. The systematic application of rubbing, friction, kneading, and other passive movements to the body for therapeutic purposes.

mas'seter. One of the facial muscles which aids in mastication.

masseur *mas-ur'*. A man who does massage.

masseuse *mas-u(r)z'*. A woman who does massage.

mastica'tion (Lat. *masticare* = to chew). The chewing of food.

masti'tis (Gr. *mastos* = breast and *itis* = inflammation). Inflammation of the breast.

mas'toid. The prominent portion of the temporal bone behind the ear. The lower portion of the bone is composed largely of cancellous tissue and contains many honey-comb-shaped cavities which

communicate with the middle ear.

mastoidec'tomy. Excision of all or part of a mastoid bone.

mastoidi'tis. Inflammation in the mastoid cavities.

mastot'omy. Incision of a breast.

masturba'tion (Lat. *manus* = hand and *stuprare* = to rape). The causation of venereal orgasm by the hand.

mate'ria med'ica. The science that treats of the source, preparation, and properties of substances used as medicines.

mater'nal. Relating to or originating with the mother.

'ma'trix (Lat. *mater* = mother). (1) The uterus. (2) The place where anything is generated. (3) The groundwork or origin.

mat'ter. (1) Anything which occupies space and possesses weight. That of which the universe is composed. (2) Pus.

mature'. Well developed. Ripe.

matzoon'. A fermented milk.

maxil'la (Lat. *jawbone*). Superior m., the upper jawbone. Inferior m., the mandible or lower jawbone.

max'imial. The largest allowance possible.

max'imum. (Lat. *the greatest*). (1) The largest or greatest. (2) The height of a disease.

measles *me'-zls.* A highly communicable disease, the active cause of which is as yet unknown. The disease usually begins with chills, coryza, and catarrhal symptoms, followed by fever and, in about four days, a typical eruption. This fades in from one to two weeks and is followed by desquama-

tion. The period of incubation is 8-12 days. **Black m.**, a severe type of measles in which the eruption is of a dark color due to capillary hemorrhages under the skin. **German m.**, rubeola, a mild, communicable disease that is attended by little if any systemic disturbance. The eruption sometimes resembles that of measles, but it is thought that the two diseases are not related.

mea'tus (Lat. *passage*). An opening or narrow passage.

mech'anism. A machine-like structure. Machinery.

mech'another'apy. The treatment of disease by mechanical means; *e. g.*, gymnastics.

meco'nium. The dark-green or black substance, consisting principally of mucus, bile, and epithelial cells, that is discharged from the intestine of the newborn.

me'dial (Lat. *medialis*). Pertaining to the middle.

me'dian. In the middle. Between others.

medias'tinal. Pertaining to the mediastinum.

medias'tinum space. The space left in the median line of the chest by the non-approximation of the two pleuræ. It extends from the sternum in front to the spine behind.

med'icine. (1) An agent, especially a drug, used as a remedy. (2) The art and science of healing.

me'dium, pl. **media** (Lat. *middle*). (1) Middle. (2) An agency of transmission or communication. (3) Surroundings. **Culture m.**, any substance in which bacteria are grown.

medul'la (Lat. *marrow*). (1) The marrow. (2) The pith of a plant. (3) The essential part. **M. oblongata**, the part of the brain situated between the spinal cord and the pons. The most vital reflex and automatic nerve centers of the body are situated in the *m. oblongata*; *e.g.*, the respiratory center, the accelerator center for the heart, one of the vasomotor centers, etc.

med'ullary. Pertaining to, or resembling, the medulla or marrow.

me'ga, mega'la. Prefixes derived from the Greek, signifying great.

mega'loblast. See Macroblast.

melancho'lia. A form of insanity, or condition bordering upon insanity, in which there is great depression of spirits.

melangeur mel-on(g)-jer'. (Fr.). A capillary tube with one end blown into a bulb, that is used for drawing specimens of blood for examination.

mel'anin. A dark pigment, thought to be a product of cell activity, that is found in hair, choroid, and other dark tissues.

mel'ano (Gr. *melanos* = black). A prefix used to signify black.

mem'brane. A thin sheet-like expansion of tissue. **Drum m.**, see Ear. **Cutaneous m.**, see Skin. **Diphtheric m.**, the white leather-like skin that forms in the throat in diphtheria. **Fetal m.'s**, the membranes surrounding the fetus while it is in the uterus. **Mucous m.**, the membrane which lines the cavities and passages of the body that communicate with the exterior of the body. Mucous membranes secrete a viscid

liquid that serves to prevent irritation of the surface of the membrane, and also to prevent the entrance of foreign substances into the passages which they cover. **Serous m.**, that which lines cavities and passages of the body which do not communicate with its exterior. Serous membranes secrete a lubricating fluid which keeps their surfaces moist and prevents friction between organs that are in contact with each other or with the walls of a cavity. **Synovial m.'s**, these are of three kinds: articular s. m.'s, those which line the cavities of a joint; bursal s. m.'s, those that line bursæ; and vaginal s. m.'s, those which line tendon-sheaths. These, like mucous and serous m.'s, secrete a fluid that lubricates their surfaces and thus prevents irritation of the parts they cover.

mem'ory. The mental faculty or power by which impressions received by the memory centers of the brain in the past are recalled. Some of the important factors contributing to the probability of a thing being remembered are: (1) Receiving the impression over as many paths as possible; *i. e.*, by the nerves connected with the senses of sight, hearing, smell, touch, etc. (2) The connecting of the thing to be remembered with several associations. (3) Concentrating the attention upon the thing to be remembered. (4) Recalling it frequently to mind.

meninges *men-in'-jēz* (Gr. *mēn-ingx* = a membrane). The membranes that envelop the brain and spinal cord, they are known as the dura mater, pia mater, and arachnoid.

meningi'tis. Inflammation of the meninges. **Cerebral m.**, that affecting only the meninges of the brain. **Cerebrospinal m.**, that involving the meninges of both brain and spinal cord. Either form of meningitis may occur as the result of injury, of infection by various bacteria, or of degenerative tissue changes due to poisoning by alcohol, syphilis, etc. **Epidemic cerebrospinal m.**, an acute, communicable disease due to a seropurulent inflammation of the pia mater and arachnoid, as the result of infection by the *Diplococcus intracellularis meningitis*. **Leptomeningitis**, that involving the pia mater or the pia mater and arachnoid. **Pachymeningitis**, inflammation of the dura mater. **Septicemic m.**, that due to infection by pus-producing organisms. **Spinal m.**, inflammation of the membranes of the cord. **Traumatic m.**, that due to injury. **Tubercular m.**, that due to infection by the tubercle bacilli, it is known also as acute hydrocephalus or water on the brain.

mening'ocele. Protrusion of the meninges.

menis'cus (Gr. *meniskos* = a little moon, a crescent). (1) A lens, concave on one side and convex on the other. (2) The upper surface of a fluid column, as that of the mercury in a thermometer.

men'opause (Gr. *men* = the month and *pauein* = to cease). The natural cessation of the menses which usually occurs between the forty-fifth and fiftieth year.

menopha'nia. The first appearance of the menses.

menorrha'gia (Gr. *men* = the

month and *rhēgnymi* = to flow). Abnormally profuse menstruation.

men'ses. Menstruation. The monthly discharge of blood from the uterus. **Vicarious m.,** that from some other part than the uterus.

men'struum. That in which anything is dissolved; a solvent.

mensura'tion. The act of measuring.

men'tal (Lat. *mens*=the mind and *mentum*=the chin). (1) Pertaining to the mind. (2) Pertaining to the chin.

men'thol. A crystalline substance obtained from oil of peppermint.

mer'cury, quicksilver. A metallic element that at ordinary temperature, when uncombined, is in the form of a heavy silvery liquid. In nature it occurs chiefly as a sulphide, called *cinnabar*, and in globules of metal inclosed in the cinnabar. Its chemical symbol is Hg., the Latin name being *hydrargyrum*. Certain mercurial preparations are used as disinfectants, anti-syphilitics and, especially calomel and blue mass, as cathartics.

mercur'ic. Pertaining to or containing mercury. **M. chlorid** or **bichlorid of mercury** Hg Cl. A substance made by dissolving mercuric oxide in hydrochloric acid or by subliming a mixture of common salt (sodium chlorid) and mercuric sulphate. It is extremely poisonous. It is used as a disinfectant—a solution of 1:2000 will kill non-spore-bearing bacteria in an hour; a solution of 1:1000 will do so in half an hour. Bichlorid of

mercury cannot be used for the disinfection of animal excreta because it unites with certain of the constituents of the excreta and is thereby changed into insoluble, inert substances; neither should it be used for the disinfection of fabrics or metals, for it discolors the former and corrodes the latter.

mercur'ous chlo'rid, calomel, Hg Cl. A substance obtained by heating a mixture of mercuric chlorid and mercury. When exposed to the light or when combined with salt, it is slowly changed to bichlorid of mercury. Dose, $\frac{1}{2}$ –5 grains. Sodium bicarbonate is usually given with large doses of calomel as this prevents the latter being changed into bichlorid, and the calomel is usually followed in a few hours by a dose of salts, so that no calomel will remain in the intestine.

mere, mero. Prefixes used to signify division.

mesencephalon mes-en-sef'-a-lon. The mid-brain. It is a narrow structure of the brain which connects the cerebrum with the parts below.

mesenter'ic. Pertaining to the mesentery.

mesenteri'tis. Inflammation of the mesentery.

mes'entery (Gr. *meo*=the middle and *enteron*=intestine). The fold of peritoneum which invests the greater part of the small intestine, extends backward, and is attached to the spine so that it holds the intestine in place.

me'sial. In the middle, median.

me'soblast. The middle of three layers of cells into which the cells of an impregnated ovum

divide. From the mesoblast are derived the bones, connective tissues, muscles, the greater part of the organs of excretion and generation, and the epithelium of the blood- and lymph-vessels and of the serous cavities.

me'ta. A prefix derived from the Greek signifying change, transposition, over, after, with, or between.

metabol'ic (Gr. *metabole*=a change). Pertaining to metabolism.

metab'olism. The changes that occur in food from the time it is absorbed until it is eliminated. This includes the breaking down and building up of body tissues since the tissues are constructed from substances obtained from food.

metab'olite. A substance produced by metabolism.

metacar'pus. (1) The five bones extending from the wrist to the fingers. (2) The part of the hand of which these bones form the foundation.

met'al. A mineral.

metal'ic. Pertaining to, or consisting of metal.

met'allurgy. (1) The art of separating metals from their ores or from impurities. (2) Working with metals as plating, alloying, etc.

metamor'phosis (Gr. *a transformation*). A change in the character, form, or structure of anything.

met'aphysics. A science dealing with subjects incapable of being dealt with by physical research. Supernatural. Beyond the realm of consciousness.

metaprot'ein. A substance derived from a protein by the

action on it of an acid or an alkali. It represents one of the primary changes that occur in protein in the course of digestion.

metas'tasis (Gr. *meta*=change and *stasis*=a standing). A change in the seat of a disease from one part of the body to another part that is not directly connected with the first location.

metatar'sus. (1) The five bones between the tarsus and the toes. (2) The part of the foot in which these bones are contained.

Metch'nikoff. A Russian physiologist, born 1845. The discoverer of phagocytes and phagocytosis.

me'ter. A measure of length, equal to 39.371 inches.

me'thane. Marsh gas. CH_4 . See Gas.

meth'yl alcohol. Wood alcohol. See Alcohol.

meth'ylated. Containing methyl alcohol.

meth'ylene blue. A blue pigment much used in microscopic work and, medicinally, as an analgesic and antiperiodic. Dose, $1\frac{1}{2}$ -4 grs.

me'tra (Greek). The uterus.

met'ric system. The system of measuring which originated in France in 1795. In this system the meter is the unit of length; the gram, of weight; and the liter, of volume. A meter is the ten-millionth part of the distance from the equator to the north pole. A gram represents the weight of a cube of water each side of which measures one centimeter or $\frac{1}{100}$ part of a meter, the water being at its greatest density—i. e., when it is 40° C. A liter represents the

volume of a cube of water each side of which measures one-tenth of a meter.

metri'tis (Gr. *metra* = the uterus and *itis* = inflammation). Inflammation of the uterus.

met'rocele. Hernia of the uterus.

metrorrha'gia (Gr. *metra* = the uterus and *rhēgnymi* = to flow). Hemorrhage from the uterus.

Mg. The symbol of magnesium.

mias'ma. Noxious exhalations or emanations. Effluvia arising from putrefying substances.

mi'cro (Gr. *mikros* = small). A prefix signifying smallness.

mi'crobe (Gr. *mikros* = small and *bios* = life). A microorganism.

micro'bicide. Any agent that will kill microbes.

micrococ'cus. See Coccus.

mi'crocyte. A small blood corpuscle.

mi'cron (Gr. *mikros* = small). A micromillimeter or $\frac{1}{1,000,000}$ part of a meter. It is usually represented by the Greek letter μ .

mi'roscope (Gr. *mikros* = small and *skopeo* = to see). An optical instrument used for the examination of minute objects. **Binocular m.**, one with two eye-pieces. **Compound m.**, one with two or more lenses. **Simple m.**, one consisting of a single lens or of several lenses which act as one.

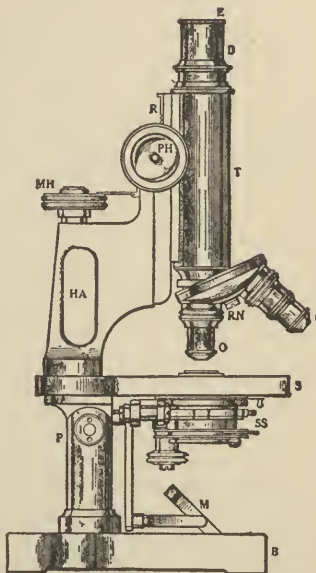
microscop'ic. Belonging to, or only visible with, a microscope.

micturi'tion (Lat. *micturire* = to urinate). The voiding of urine.

mid'riff. The diaphragm.

mid'wife. A woman who delivers women with child. A female obstetrician.

| | | | |
|----|----------------------|----|--------------|
| E | Eye-piece | SS | Substage |
| D | Draw tube | M | Mirror |
| T | Body tube | B | Base |
| RN | Revolving nose-piece | R | Rack |
| O | Objective | P | Pillar |
| PH | Pinion head | I | Inclination |
| MH | Micrometer head | | Elevation of |
| HA | Handle arm | | handle arm |
| S | Stage | | |



Microscope.

migraine'. Sick headache. A nervous affection in which there are attacks of severe headache limited usually to one side of the head. The headache is usually accompanied with nausea and vomiting and there may be marked depression and prostration.

mi'grate (Lat. *migrare* = to wander). To move from place to place.

mil'iary (Lat. *milium* = millet).
(1) Of the size of millet seeds.
(2) Characterized by the formation of small nodules.

milk. The secretion of the mammary glands. **M. leg**,

a septic infection or thrombus of the leg, following child-birth. The infection extends from the uterus to the veins of the pelvis and thence down the leg. **M. sugar**, lactose, a sugar contained in milk, it is neither as sweet nor as easily fermented as cane sugar. **M. teeth**, the first or temporary teeth.

mil'ligram. $\frac{1}{1000}$ part of a gram.

mil'liliter. $\frac{1}{1000}$ part of a liter.

mil'limeter. $\frac{1}{1000}$ part of a meter.

Millon. A French chemist, 1812-1867. **M. test**, a test for proteins. A mixture of mercury and nitric acid is added to the substance to be tested and then heated. The development of a deep rose color shows the presence of protein.

min'im. $\frac{1}{60}$ part of a fluid dram.

min'im'al, minimum. The smallest possible amount.

mio'sis. Abnormal contraction of the pupil.

miot'ic. Any drug or agent that causes miosis.

miscar'riage. Expulsion of the fetus before the sixth month of gestation.

mis'cible. Capable of being mixed.

mist. An abbreviation for *mistura* or mixture.

mistu'ra. Latin for mixture.

mite. A small parasitic insect.

miti'gate (Lat. *mitigare* = to soften). To make less severe. To assuage or moderate.

mito'sis. See Karyokinesis.

mitot'ic. Pertaining to mitosis or karyokinesis.

mí'tral. Shaped like a miter.

M. valve, the valve between the left auricle and left ventricle of the heart.

mix'ture (Lat. *mistura*). A medicinal preparation in which a drug is held suspended in water by some viscid substance.

mobil'ity. Capability of being moved.

mo'bilize. To render capable of being moved.

modio'lus (Lat. *a hub*). The central pillar in the cochlea of the internal ear.

mo'dus. Latin for method.

moist. Damp.

mo'lar (Lat. *moles* = a mass also *molere* = to grind). (1) Belonging to a mass. (2) The grinding teeth. They are twelve in number and are situated behind the bicuspid teeth, three on each side of the upper and lower jaws.

mold. (1) A form or cast. (2) A fungus, visible to the naked eye, that is characterized by the development of long slender threads some of which project into the substance of the material upon which they grow. They take their nourishment from this matter and in so doing cause chemical changes that result in the disintegration of the material. There are several varieties of molds some of which develop on food stuffs, others attack growing grain, and others cause pathogenic conditions in man. Of the latter class are ringworm, and favus.

mole. (1) A small brown spot on the skin. (2) A form of uterine tumor developed as the result of the degeneration or abnormal development of an ovum.

molec'ular. Pertaining to molecules.

mol'ecule. The smallest particle of a compound that can

exist in a free or uncombined state.

mollu'scum epithelia'le. An affection of the skin characterized by the occurrence of small discrete wax-like elevations. The cause is unknown, but the affection is thought to be communicable.

molyb'date. Any salt of molybdic acid. **Ammonium m.** is used when testing for the presence of phosphates, because it unites with phosphoric acid to form a white insoluble substance that is precipitated.

molyb'dic acid. An acid derived from molybdenum, a rare element.

mon, mono (Gr. *monos*=alone, one). Prefixes used to denote one.

monatom'ic. Containing but one atom.

monoc'ular (Gr. *monos*=one and Lat. *oculus*=an eye). Having but one eye.

mononu'clear. Having but one nucleus.

monople'gia (Gr. *monos*=one and *plēgē*=a stroke). Paralysis of any one part.

monosac'charids (Gr. *monos*=one and Lat. *saccharum*=sugar). The class of simple sugars to which glucose, levulose, and galactose belong.

monox'ide. Any oxide that contains but one atom of oxygen.

mons (Lat. *mountain*). An eminence. **M. veneris**, the eminence in the upper and anterior part of the pubes of women.

mons'ter. A fetus born with a redundancy or deficiency, a confusion or transposition of parts.

mor'bid (Lat. *morbidus*=sick). Diseased or pertaining to disease.

morbid'ity. (1) The condition of being diseased. (2) The amount of disease in a given community.

morbif'ic (Lat. *morbus*=disease and *facere*=to make). Producing or causing disease.

mor'bus. Latin for disease.

mor'dant (Lat. *mordere*=to bite). A substance used for fixing a stain or dye.

morgue. A place where dead bodies are sent to await identification.

mor'ibund. In a dying state.

morning-sickness. The nausea and vomiting that trouble pregnant women on first arising in the morning. This symptom usually begins about the second month of pregnancy and stops about the end of the fourth or fifth month.

mor'phin (Lat. *morpheus* the god of sleep and dreams). The most important of the opium alkaloids. Morphin is insoluble in water, but it forms soluble salts when combined with mineral or organic acids. These salts are used medicinally for the relief of pain and as antispasmodics. (See Opium.) Dosage: M. hydrochlorate, $\frac{1}{8}$ – $\frac{1}{4}$ grain; m. sulphate, $\frac{1}{8}$ – $\frac{1}{4}$ grain. Magendie's solution of m., 3–10 minims. This preparation contains grains 16 of morphin in each ounce of solution.

morphol'ogy. The science of the form and structure of organisms.

morpho'sis. The process of formation.

mor'rhua (Lat. *cod-fish*). The cod-fish. The oil extracted

from the cod-fish. See Cod Liver Oil.

mor'tal (Lat. *mortis*=death). Deadly. Producing death. Subject to death.

mortal'ity. (1) The death rate. (2) The state of being mortal.

mor'tar. A vessel in which drugs, etc., are mixed with a pestle.

mortifica'tion (Lat. *mortis*=death and *facere*=to make). The death of a part, gangrene.

mor'tuary (Lat. *mortuus*=dead). A place for the temporary reception of the dead.

mor'ula (Lat. *morus*=a mulberry). Resembling a mulberry. A mass of cells, such as is formed by the primary division of a fertilized ovum.

mother liquor. The portion of a solution that remains after the less soluble constituents have been crystallized out.

mo'tile (Lat. *motus*=motion). Having the power of involuntary or spontaneous movement.

mo'tor. That which causes movement, the term is applied to muscles and nerves which cause movement, of any part of the body.

mountain sickness. The headache, dizziness, nausea, and other symptoms that some people experience when they ascend high mountains, due to a decrease in the atmospheric pressure.

moun'ting. The preparation of specimens and slides for examination.

mu'ciform. Resembling mucus.

mucila'ginous. Of the nature of mucilage.

mu'cin. A protein substance that is one of the principal constituents of mucus.

mucoid *mu'-koid*. Resembling mucus.

mucor *mu'-kor*. Mustiness. Mold.

muco'sa. The mucous membrane.

mu'cous membrane. See Membrane.

mu'cus. The viscid, watery substance secreted by the glands of the mucous membrane.

mul'ti (Lat. *multus*=many). A prefix denoting many, much.

multip'ara. A woman who has had more than one child.

multiv'alent. See Valence.

mumps. Inflammation of the salivary glands, especially the parotids. The condition is caused by a germ, as yet undiscovered, and is communicable.

mu'ral (Lat. *murus*=a wall). Pertaining to, or attached to, a wall.

muriat'ic acid. The commercial name for hydrochloric acid.

mur'mur. A low blowing sound heard in auscultation. **Anemic m.**, **blood m.**, **hemic m.**, a murmur due to some abnormal condition of the blood and not to any lesion of the heart or blood-vessels. **Aneurismal m.**, one due to an aneurism. **Cardiac m.**, one heard over the heart; according to the location and nature of the murmur, cardiac m.'s, are called aortic, mitral, tricuspid, pulmonary diastolic, systolic, regurgitant, etc. **Frictional m.**, one caused by two inflamed surfaces rubbing against each other.

mus'cle. An organ whose essential part is a mass of striated muscular tissue, prolonged at its opposite ends or margins

by cords, bands, or sheets of white fibrous tissue which are fastened to other structures, usually bones. Muscular tissue, when stimulated by nerve impulses, contracts and, by so doing, causes movement of the parts to which it is attached.

must (Lat. *mustum*). The unfermented juice of grapes.

myal'gia (Gr. *mys*=a muscle and *algos*=pain). Muscular pain.

myasthe'nia. Muscular weakness.

myce'lium (Gr. *mykēs*=a fungus). The vegetative part of a fungus which is composed of a mass of threads or filaments called hyphæ.

myceto'ma. A tumor due to a fungus growth.

my'cocyte. A mucus cell.

mydri'asis (Greek). Extreme dilation of a pupil.

mydriat'ic. Any drug that causes dilation of the pupil.

my'elin (Gr. *marrow*). The white substance which encloses the axis-cylinder of a nerve, called the *white substance of Schwann*.

myeli'tis. Inflammation of the spinal cord.

my'eloblast. A bone-marrow cell.

myelo'ma. A bone-marrow tumor.

my'elon. The spinal cord.

my'o (Gr. *myos*=a muscle). A prefix denoting relation to muscles.

myocardi'tis (Gr. *myos*=muscle *kardia*=the heart and *itis*=inflammation). Inflammation of the muscular substance of the heart.

my'ogen. One of the protein substances of muscle. It is

of the albumin type of proteins.

myolem'ma. The delicate membrane that covers muscular fibers, the sarcolemma.

myo'ma. A muscular tumor.

myomec'tomy. An operation for the removal of a myoma.

myom'eter. An apparatus used to measure the force of muscular contraction.

myo'pia. Near-sightedness, *i. e.*, light rays entering the eye come to a focus before they reach the retina; either because there is a too great curvature of the lens or else the eyeball is too deep. To remedy the defect, concave glasses are worn; these, by causing a divergence of the rays entering the eye, prevent their being focused too soon.

my'osin. A protein of the globulin type that forms one of the chief constituents of muscle tissue.

myosi'tis. Inflammation of a muscle.

myrrh mer. A gum resin that has disinfectant and astringent properties. Its principal medicinal use is as a mouth wash when the gums are bleeding or inflamed.

myxede'ma (Gr. *myxa*=mucus and *oidos*=a swelling). A condition due to lack of thyroid secretion. The patient is dull and stupid, his skin is thick and beneath it is an amount of mucous-like fluid. The treatment consists in administering an extract of the thyroid gland of some animal, sheep, for instance.

N

N. Symbol for nitrogen.

nape. The back of the neck.

naphtha *naf'-tha*. (1) A colorless inflammable distillate of petroleum. (2) A class of petroleum products including benzine, gasoline, kerosene, vaseline, paraffin, etc.

naph'thalene. A hydrocarbon derived from coal tar. It is a white solid, insoluble in water. *Moth balls* are made of naphthalene.

narco'sis (Gr. *narkē*=numbness). A state of stupor or profound unconsciousness resulting from the use of a narcotic.

narcot'ic. A drug that produces sleep or stupor.

na'ris, pl. **na'res** (Lat. *nostril*). One of the nasal fossæ; *i. e.*, the irregular openings at the upper and back part of the nose that extend backward to the naso-pharynx.

na'sal (Lat. *nasus*=the nose). Pertaining to the nose. **N. bones**, the two small bones that form the arch of the nose. **N. duct**, the tear duct, a short canal leading from the lachrymal point, at the inner angle of the eye, and opening into the nose.

na'so. A prefix used to denote relation to the nose.

na'tes (Lat.). The buttocks.

nau'sea (Gr. *naus*=a ship). A desire to vomit. Sea-sickness.

nau'seous. Nauseating. Producing nausea.

na'vel. The umbilicus. **N. cord**, the umbilical cord.

near-sight. See Myopia.

neck. The part between the head and the trunk. A constricted part near the extremity of a bone or an organ.

necrop'sy (Gr. *nekros*=dead, a corpse and *opsis*=view). An autopsy.

necro'sis (Gr. *nekros*=dead). Death of tissue, more especially of bone. It may result from interference with the normal blood supply of the part from any cause.

nem'atode. See *Ascaris lumbricoides*.

ne'o (Gr. *neas*=new). A prefix signifying new or fresh.

ne'oplasm (Gr. *neos*=new and *plasis*=formation). A new, abnormal formation as a tumor or diphtheritic membrane.

nephrec'tomy (Gr. *nephros*=a kidney and *tome*=a cutting). Removal of a kidney.

nephri'tis (Gr. *nephros*=a kidney and *itis*=inflammation). Inflammation of a kidney. Popularly, but incorrectly, used as a synonym of Bright's disease. The latter term is correct only when applied to chronic nephritis.

nephroge'nic. Originating in the kidney.

neph'roid. Resembling a kidney.

neph'rolith (Gr. *nephros*=a kidney and *lithos*=a stone). A stone in the kidney.

nephropyo'sis. Suppuration of a kidney.

nephror'rhapsy. Suture of a kidney.

nephrot'omy. Incision into a kidney.

nerve. Any one of the bundle of nerve-fibers over which nerve impulses pass. **N. cell body**, the body or vital part of the nerve cell from which the processes of the cell arise. It is usually spoken of as the nerve cells. The cell body affords nutriment for its processes; when a process is separated from the cell body it dies. Also, it is in the cell

bodies that the generation, transmission, and modification of nerve impulses take place. **N.-center**, a group or mass of n. cells, especially groups concerned in some special function as respiration, deglutition, etc. **Cerebro-spinal n.'s**, those extending between the brain and the spinal cord. **Cranial n.'s**, those which pass to and from the brain through openings in, or between, the bones forming the base of the skull. **N. endings**, the peripheral terminations of the nerves. **N. impulses**, the force or energy which passes along nerve-fibers as the result of their stimulation. **Mixed n.**, one containing both sensory and motor fibers. **Motor n.**, one over which impulses that produce movement pass from the nerve-centers to the muscles and other organs. **N. processes**, the axons, dendrites, collaterals, nerve-fibers, and nerve endings. **Sensory n.**, one which carries sensations to the nerve-centers. **Spinal n.'s**, those which pass out from the spinal cord through openings between the vertebra. **Sympathetic n.'s**, those which have their origin in the sympathetic ganglia and are distributed to the blood-vessels and viscera.

ner'vous. Pertaining to the nerves. **Neurasthenia**. **N. system**, the system composed of the brain, spinal cord, sympathetic ganglia (*i. e.*, masses of nerve tissue, situated chiefly in the abdominal and thoracic cavities on either side of the vertebra), and the nerves.

nettle-rash. See *Urticaria*.

neu'ral (Gr. *neuron* = a nerve). Pertaining to a nerve or the nervous system.

neural'gia. Pain in a nerve or nerves.

neurasthe'nia. The name for a variety of abnormal conditions that arise as the result of some disorder of the nervous system.

neurax'is. The axis-cylinder process of a nerve cell, called also axon and neuraxon.

neurilem'ma. Sheath of Schwann; *i. e.*, a delicate structureless membrane that invests nerve-fibers.

neuri'tis. Inflammation of a nerve.

neu'ro. A prefix used to denote connection with the nerves or nervous system.

neu'roblast. A cell from which nerve tissue is developed.

neurog'lia. A form of connective tissue that acts as a framework for the substance of the brain and spinal cord.

neurol'ogist. One versed in neurology. One who makes a special study of the nervous system and the diseases that affect it.

neurol'ogy. The branch of biology devoted to the study of the nervous system.

neuro'ma. An innocent tumor composed of nerve-fibers. It is peculiar to the trunks of nerves.

neu'ron. A complete nerve cell, *i. e.*, the cell body and its processes.

neurop'athy (Gr. *neuron* = a nerve and *pathos* = suffering). Any disease of the nervous system.

neuro'sis. Any functional disorder of the nervous system that is not due to a discoverable lesion of the nervous system.

neurot'ic. Pertaining to neurosis or to the nervous system.

neurot'omy. The dissection or cutting of a nerve.

neu'tral. Neither acid nor alkaline.

neu'tralize. To render neutral or ineffective. To counteract. Acids and alkalies are neutralized by combining them; as, when combined, they unite chemically to form a salt.

ne'vus. A circumscribed deposit of pigment in the skin; *e. g.*, a mole, a birth-mark.
N. capillary, one involving the capillaries of the skin.

nic'otin. An acrid poisonous alkaloid of tobacco.

ni'trate. A salt of nitric acid.

nitrifica'tion. The conversion of the nitrogen of ammonia into nitric and nitrous acids.

ni'trite. A salt of nitrous acid.

nitrobacte'ria. A class of bacteria, common in the soil, which causes the nitrification of the ammonia products resulting from the decomposition of such organic matter as manure, decaying plants, etc. These bacteria are very essential to the growth of plants as it is from the nitrates, formed by the union of the nitric and nitrous acids with the alkalies of the soil, that plants derive a large portion of their necessary supply of nitrogen.

ni'trogen. A colorless, inert, gaseous element. It constitutes about four-fifths of the air, its purpose there being to dilute the oxygen. Also it occurs in many substances, both organic and inorganic.

nitrogenous ni-troj'-en-us. Containing nitrogen. This term is more especially used in connection with protein food-material. See Protein.

nitroglyc'erin. An explosive liquid formed by the action of nitric and sulphuric acids on glycerin. It is used medicinally to cause vasodilation, and thus relieve abnormally high blood-pressure, and as an antispasmodic. Dosage: spirit of n., 1 per cent., 1-3 minims; tincture, 1-10 minims.

ni'trous oxid gas, laughing gas. A colorless, inodorous gas used as a general anesthetic for short operations or as a preparation for ether or chloroform when it is desired to anesthetize the patient quickly. It cannot be given for any length of time since the patient cannot be allowed to breathe any air while inhaling the gas, for if it becomes mixed with oxygen—and therefore air—its composition is changed and it loses its anesthetic property.

noctur'nal (Lat. *nocturnus*). Of, or pertaining to, the night.

no'dal. Resembling, or pertaining to, a node.

node (Lat. *nodus* = knot). (1) A protuberance. (2) An indurated swelling.

no'dular. Resembling or covered with nodes or nodules.

no'dule. A node.

no'ma (Lat. *nome* = a corroding ulcer). An ulcerative or gangrenous condition of the mouth, ulcerative stomatitis.

no'menclature. The technical names used in any branch of science.

non (Lat. *not*). A prefix denoting without, not.

non-nucleated. Without a nucleus.

nor'mal. Typical. Following the natural order or law.

nostal'gia (Gr. *nostos*=return and *algos*=pain). Homesickness; a longing to return home.

notch. A depression or indentation, especially on the edge of a bone.

nu'clear. Belonging to, or of the nature of, a nucleus.

nu'cleäse. An enzyme existing in the tissues that helps in the disintegration of nucleoproteins.

nu'cleated. Having a nucleus or nuclei.

nu'clein. An important nitrogenous constituent of cell nuclei.

nucleo'lus, pl. **nucleoli**. A minute granule contained within the nucleus of a cell.

nucleopro'teins. Compounds of simple proteins and nucleic acid. When decomposed they yield purin bases and uric acid. Nucleoproteins are especially abundant in the highly nucleated cells of the glandular organs, as the thymus, pancreas, and liver.

nu'cleus. (1) The solid substance near the center of a cell which is essential for the life and dividing of the latter. (2) A controlling center or essential part. (3) A central mass around which matter collects.

num'mular (Lat. *nummus*=money). (1) Having the character of a coin or money. (2) Consisting of round, flat disks.

nut'gall. See Gall.

nu'trient, **nutriment**. That which nourishes.

nutri'tion. The act of nourishing. The process in which the cells take from the blood the substances required by the tissues of the body for

their growth and repair. Anabolism.

nux vom'ica. A drug obtained from the *Strychnos nux-vomica*. It owes its therapeutic value to its chief alkaloid *Strychnin*. It is used principally as a tonic. See *Strychnin*. Dosage of *nux vomica*: fluid-extract, 1-5 minims; tincture, 5-20 minims.

nym'pha. The labia minora.

O

O. The symbol for oxygen.

oak'um. An absorbent material made from old ropes.

obese' (Lat. *obesus*). Exceedingly fat; corpulent.

obe'sity. Fatness; corpulency.

objec'tive. Pertaining to things that are perceptible to the senses. **O. glass**, the lens of the microscope that is nearest the object. **O. symptoms**, those that are perceptible to the onlooker.

oblique o-blēk'. Slanting.

oblit'erate. To wipe out. To efface.

obliv'ion. Forgetting.

oblonga'ta. See *Medulla oblongata*.

obscene'. Impure. Unchaste.

obscure'. Darkened. Concealed. Not easily understood.

obses'sion. The domination of the mind by an idea.

ob'solete. (1) Out of date or use. (2) Indistinct.

obstetri'cian. One who is skilled in obstetrics.

obstet'rics. The art of assisting women in childbirth and of treating the diseases and emergencies that occur in connection with pregnancy,

parturition, and the puerperium.

obstruc'tion. An obstacle. Hindrance.

ob'turator. That which closes or stops up an opening.

obtuse'. Blunt, dull.

occip'ital. Pertaining to the back part of the head.

occipital'is. The posterior portion of the occipito-frontalis muscle.

oc'ciput (Lat.). The back part of the head.

occlu'sion. (1) The act of closing or blocking. (2) The absorption of a gas.

occult. Mysterious. Obscure.

octa'rius (Lat. octo=cight). A pint, *i. e.*, the $\frac{1}{8}$ part of a gallon.

oc'ular (Lat. oculus=cye). Pertaining to the eyes.

oc'ulist. One skilled in the treatment of diseases of the eyes.

odon'tic (Gr. odontos=a tooth). Pertaining to the teeth.

odonto'ma. A tumor, consisting of substance resembling that of the teeth, which develops upon a tooth. It may be either innocent or malignant.

O'Dwyer. An American surgeon who lived in 1841-1898. He invented the laryngeal intubation tubes used to prevent asphyxia when the larynx is obstructed by swelling, a membrane, etc.; and also an apparatus, consisting of a laryngeal tube and bellows, for performing artificial respiration.

o'dyn (Gr. odyne=pain) A prefix denoting pain.

offi'cial. Said of drugs that are listed in the pharmacopœia.

ohm òm. The unit of electric resistance. Called after George S. Ohm, a German electrician, 1781-1854.

oid'ium. A name applied to a class of yeast-like organisms that have a tendency to grow out into long threads or hyphæ. **O. albicans**, the oidium that causes thrush.

oil (Lat. oleum). A term applied to all neutral fatty substances which are liquid at ordinary temperatures. **Fixed o.**, any oil that is not easily volatilized. **Volatile o.**, any oil that evaporates readily at ordinary temperatures.

oint'ments. Preparations of drugs with a basis of vaselin or other fat.

olea'ginous (Lat. oleum=oil). Resembling oil or fat. Greasy.

o'leate. Any salt of oleic acid.

ole'ic acid. An acid obtained by the saponification of olive oil.

o'leum. Latin for oil.

olfac'tion (Lat. olfacere=to smell). The sense of smell.

olfac'tory. Pertaining to the sense of smell.

ol'ivary bodies. Two olive-shaped protuberances, containing masses of gray matter; situated at the upper edge of the medulla oblongata.

omen'tal. Pertaining to the omentum.

omen'tum. A fold of the peritoneum that hangs like a curtain in front of the stomach and intestines.

om'ni (Lat. omnis=all). A prefix signifying all, unlimited.

omniv'orous (Lat. omnis=all and vorare=to eat). Eating foods of all kinds. The word is also used figuratively; *e. g.*, reading all kinds of literature.

o'mo (Gr. *omos* = the shoulder).

A prefix used to denote connection with the shoulder.

oöphari'tis (Gr. *oon* = an egg, *phoros* = bearing, and *itis* = inflammation). Inflammation of an ovary.

oöphorec'tomy. Excision of an ovary.

oöphoro'ma. A malignant tumor of the ovary.

opac'ity. The quality of being opaque. Want of transparency.

opaque *o-pāk*. That condition of bodies which prevents the passage of light-waves through them; *i. e.*, they are impervious to light, not transparent.

op'erable. That can be operated upon with hope of improvement of the abnormal condition and of the individual's recovery from the effects of the operation.

ophthalmia (*off-thal'-me-ah* (Gr. *ophthalmos* = the eye). Inflammation of the eye or of the conjunctiva. **Catarrhal o.**, pink eye, an acute contagious form of ophthalmia in which the lids are red and swollen, the eye red and sensitive to light, and there is an increased secretion of a muco-purulent nature. **Diphtheritic o.**, a very serious communicable form of ophthalmia, due to infection by Klebs-Löffler bacilli. **Gonorrheal o.**, an exceedingly serious communicable form of ophthalmia due to infection by the gonococci. **O. neonatorum**, a gonorrheal ophthalmia present in the new-born. It is the cause of more than half the cases of blindness of infants.

ophthal'mic (Gr. *ophthalmus* = the eye). Pertaining to the eyes.

ophthal'mo. A prefix signifying relation to the eyes.

ophthalmople'gia. Paralysis of the eye muscles.

ophthal'moscope. A small perforated mirror used for examining the interior of the eye.

o'pium. A drug obtained from a variety of poppy. Opium contains many alkaloids, of which the more important ones are morphin and codein. Opium and its alkaloids depress the nervous system and thus cause sleep, relieve pain, act as antispasmodics, and check the activity of the various organs of the body. Morphin is more effective in relieving pain than opium or codein, but it is not as effective in arresting diarrhea as opium. Codein is more feeble in its action than morphin, but has special powers as a cough-sedative. Dosage of opium: extract, $\frac{1}{8}$ –1 grain; tincture (laudanum), 3–15 minims; deodorized tincture, 3–15 minims; camphorated tincture (paragoric), 1–4 drams; powder of opium and ipecac (Dover's powder), 3–15 grains. See Codein and Morphin for doses of those drugs.

op'sonins (Gr. *opsonion* = provisions and Lat. *opsono* = I prepare food for). Substances contained in the blood which act in some unknown manner upon bacteria and thereby render them more easily overcome by the phagocytes. Opsonins exist in normal blood, but they are increased by immunization; their exact nature is as yet unknown.

op'tic, optical (Gr. *opticus*). Pertaining to the eyes or to sight.

op'timum (Lat. *optimus* = best). The conditions that are most

conductive to development and proper functioning.

optom'eter. An apparatus used for measuring the strength and range of vision.

o'ral (Lat. *oris*=the mouth). Connected with, or uttered by, the mouth.

orbic'ular (Lat. *orbis*=a globe). Spherical, circular.

or'bit (Lat. *orbitalis*). The bony cavity which contains the eye.

or'gan. Any part of the body which performs some special function. **O. of Corti**, the structure in the cochlea of the inner ear to which the terminal filaments of the auditory nerve are distributed.

organ'ic. (1) Pertaining to an organ or organs of animals or plants. (2) Possessing a structure or characteristics peculiar to animals and plants. (3) Having an organized structure; *i. e.*, with parts arranged or disposed so as to be capable of vital functions. **O. chemistry**, chemistry concerned with compounds containing carbon. There are, however, a few carbon compounds, as the carbonates, and carbon dioxide and monoxide, that are not considered in organic chemistry, for such bodies act more like inorganic substances.

or'gasm. Immoderate excitement. The crisis of venereal excitement.

or'ifice. An opening.

or'igin. The source or beginning. **O. of a muscle**, the end of a muscle attached to the more fixed or less freely movable joint or part.

or'tho (Gr. *orthos*=straight). A prefix used to denote straightness or regularity.

orthope'dic (Gr. *orthos*=straight and *paidos*=a child). Pertaining to orthopedia, *i. e.*, the correction of curvatures and like deformities of the body, especially those of children.

orthop'nea. Difficulty in breathing that is only relieved by an upright position.

os, pl. *ossa*. Latin for bone.

os, pl. *ora*. Latin for a mouth or opening. **O. uteri externum**, the external opening of the cervix of the uterus. **O. uteri internum**, the upper or internal opening of the cervix of the uterus.

oscilla'tion. Moving back and forth.

os'culate. A small opening. To touch.

osmose', osmo'sis (Gr. *osmos*=impulse). The passage of liquids through a membrane. The current is always in the direction from the liquid of lower specific gravity to the liquid of higher specific gravity (*i. e.*, that containing the larger amount of solid substances in solution).

osmo'tic. Pertaining to osmosis. **O. pressure**, the pressure exerted by a concentrated liquid, contained in a membranous sac, blood-vessel, etc., in consequence of which a less concentrated liquid on the other side of the sac will pass through the membrane.

os'sein. The gelatinous substance of bone.

os'sicle. A small bone.

ossifica'tion. Bone formation. Hardening and becoming like bone.

ostec'tomy. The excision of a bone.

ostei'tis. Inflammation of a bone.

os'teoblasts (Gr. *osteon* = a bone and *blastos* = a germ). Cells that develop into bone.

os'teoscope (Gr. *osteon* = a bone and *kopos* = a striking, a pain). Pain in the bones.

osteol'ysis. Decay or softening of bone.

osteoma. A bone tumor.

osteomala'cia. Softening of the bones.

osteomyeli'tis (Gr. *osteon* = a bone, *myelon* = a marrow, and *itis* = inflammation). Inflammation of the bone marrow or of both marrow and bone.

os'teopath. One who treats disease by manipulation of the bones and other tissues.

osteop'athy. A system of therapeutics which holds that disease is due to some obstruction or displacement of the body mechanism and treats abnormal conditions by manipulation of the joints, muscles, and nerves.

osteosclero'sis. Abnormal hardening of bone.

osteot'omy. The cutting of a bone.

ot (Gr. *otos* = an ear). A prefix used to denote relation to the ear.

otal'gia (Gr. *otos* = an ear and *algos* = pain). Pain in the ear.

oti'tis. Inflammation of an ear. **O. externa**, inflammation of the external ear. **O. interna**, inflammation of the inner ear. **O. media**, inflammation of the middle ear.

o'tolith (Gr. *otos* = an ear and *lithos* = a stone). Small crystals of carbonate of lime lying among the hair-like cells contained within the membranous vestibule of the inner ear.

otol'ogist. A specialist in diseases of the ear.

otom'yces. A fungus-like growth in the ear.

otopie'sis. Depression of the drum membrane.

otorrhe'a (Gr. *otos* = an ear and *rheo* = to flow). A discharge from the ear.

o'toscope. An instrument for viewing the interior of the ear.

o'va. Latin for eggs.

o'val. Egg-shaped.

ovar'ian. Pertaining to the ovaries.

ovariot'omy. Removal of an ovary, oöphorectomy.

ovari'tis. Inflammation of an ovary.

o'vary. The organ of generation in the female in which the ova are formed.

ovi al'bumin. White of egg.

o'viduct. A Fallopian tube, *i. e.*, one of the two tubes or ducts through which the ova pass from the ovaries to the uterus.

o'visac. A Graffian follicle, *i. e.*, one of the sacs or vesicles that hold the ova while they are in the ovaries.

o'vum. An egg.

oxa'cid. Any acid that contains oxygen.

oxal'ate. Any salt of oxalic acid.

oxi'dases, oxydases. Enzymes that stimulate oxidation.

oxida'tion. The combining of oxygen with a substance or one of its constituent parts. Oxidation is always accompanied by the liberation of heat, but if the union takes place very slowly the amount of heat generated will be so small that it will be hard to detect. If, however, it takes place rapidly, the heat will be very perceptible and it may be generated in such a short

interval of time that the material will burst into flame. The process is then known as *combustion*. The union of oxygen with a compound substance is associated with the disintegration of the latter, but union with an element results in the change of the latter into a compound substance that is known as an *oxide*; *e. g.*, oxide of zinc, oxide of iron—*i. e.*, iron rust. Unless a substance has a particular affinity for oxygen, it will require to be heated to its kindling temperature, or else the use of enzymes (such as those formed by animals, plants, the yeast organism, and bacteria) will be required to further oxidation. Examples of different forms of oxidation are combustion, fermentation, putrefaction, and the oxidation that is going on constantly in the animal body and giving rise to the heat and energy necessary to maintain the mechanism of the body at work.

oxy'gen. One of the gaseous elements. It is by far the most abundant of all elements and occurs both in the free and combined state. It occurs in the air in the free state, every 100 volumes of dry air containing 21 volumes of oxygen.

oxyhemoglo'bin. Hemoglobin that has oxygen in combination, as is the case with that in arterial blood.

oxytox'ins. Substances produced by the oxidation of toxins.

oxyu'ris. A species of worm that sometimes infests the intestine. *O. vermicularis*, the so-called pin or seat worm that often infests the cecum and rectum of children.

o'zene (Gr. *ozo*=to smell). A chronic affection of the nose characterized by atrophy of the mucous membrane and bones and a fetid discharge.

o'zone. A very active form of oxygen nearly always present in the air in small quantities.

P

P. The symbol for phosphorus.
pag'ulum. Latin for food.

pachy *pak'-e* (Gr. *pachys*=thick, large). A prefix used to denote thick.

pachyder'mia. Abnormal thickness of the skin.

pachye'mia. Abnormal thickness of the blood.

pachymeningi'tis. Inflammation of the dura mater.

pack. A form of hydrotherapeutic treatment in which the patient's body, or a portion of it, is enveloped in moist sheets or blankets. **Cold p.**, one in which the patient's body is enveloped in a sheet or towels wet in water about 70–80° F. and kept moist the length of time required—about 20 minutes—by sprinkling, or if towels are used, by changing a towel as it becomes dry; a hot-water bag is kept at the patient's feet during the treatment. **Hot p.**, one in which the patient is enveloped in (1) a blanket or blankets that have been wet with water about 150° F. and then wrung as dry as possible; (2) dry blankets and a rubber sheet which are placed under the patient before the application of the wet blankets and then wrapped securely over the latter. An ice-cap is kept on the patient's head during the treatment and hot-water bags are often put around him

outside of the dry blankets, but under the bedclothes.

pain. Bodily suffering or distress. **After p.'s**, those occurring after the expulsion of the after-birth; they result from the contractile efforts of the uterus to return to its normal condition. **False p.'s**, those occurring in the latter part of pregnancy, as the result of pressure on the abdominal tissues as the uterus and its contents descend into the pelvis. **Lancinating p.**, an intense shooting pain.

pal'ate. The roof of the mouth. **Cleft p.**, a palate in which there is a congenital fissure. **Hard p.**, the bone, covered with mucous membrane which forms the roof of the mouth and divides the latter from the nasal cavities. **Soft p.**, the movable fold of soft tissue which is suspended from the back of the hard palate, its central pointed portion is termed the uvula.

pal'atine. Pertaining to the palate. **P. arches**, the arch-like folds or pillars of the soft palate, situated, one on each side, at the attachment of the palate to the pharynx.

pa'le, palæ (Gr. *palaaios* = pertaining to ancient times). A prefix used to denote ancient origin. Not new.

paleogen'etic. Originating in the past.

pal'in. A Greek prefix signifying again, back.

palingen'esis (Gr. *palin* = back and *genesis* = birth). Regeneration. The restoration of a part.

pal'liative. Mitigating. Alleviating. An agent that will alleviate or give relief.

pal'lor. Paleness. Loss of color.

palmar pah'-mar. Pertaining to the palm of the hand. **P. arch**, the arch formed by the radial and ulnar arteries in the palm of each hand.

pal'pable (Lat. *palpare* = to touch). That can be perceived by the touch.

palpa'tion. Manipulation of a part with the fingers for the purpose of ascertaining the condition of the underlying organs.

palpe'bra. Latin for eyelid.

palpita'tion. A rapid action of the heart, whether due to excitement, nervousness, or disease.

palsy pawl'-ze. Paralysis associated with tremor, muscular weakness, and muscular rigidity. The cause of the condition is not known.

palu'dal (Lat. *palus* = a marsh). Pertaining to a marsh.

pan (Gr. *pan* = everything). A prefix denoting all.

panace'a (Gr. *panakeios* = all-healing). A remedy for all diseases.

pancardi'tis. A general inflammation of the heart.

pan'creas (Gr. *pan* = all and *kreas* = flesh). A large racemose gland situated within the curve formed by the duodenum and behind the stomach. It manufactures two secretions, one of which passes through the main pancreatic duct into the common bile duct and thence into the duodenum, and is concerned in digestion. The other, known as the internal secretion of the p., is absorbed by the blood and carried to the tissues. It is essential for the oxidation of glucose in the body tissues.

pancreat'ic. Pertaining to the pancreas. **P. digestive juice,** the juice secreted by the pancreas which aids in digestion. The ferments to which it owes its digestive action are: amyl-opsin, which aids in the digestion of starch; trypsinogen, which, when changed into trypsin by the enterokinase of the intestinal juice, aids the digestion of proteins; lipase, which aids the digestion of fats.

pan'creatin. An extract obtained from the pancreas of animals that is used as a digestant. Dose, 10-20 grains.

pancreati'tis. Inflammation of the pancreas.

pancreolyt'ic. Causing disintegration of pancreatic tissue.

pande'mic (Gr. *pan*=all and *demos*=people). A widely spread epidemic.

panopep'ton (Lat. *panis*=bread and *peptone*). A proprietary preparation of bread and peptonized beef.

panopho'bia, pantophobia (Gr. *pan*=all and *phobos*=fear). An insane fear of everything.

papilla, pl. papillæ (Lat.). Any small nipple-shaped eminence.

pap'illary. Resembling or pertaining to a nipple or papilla. **P. muscles,** small muscles that project from the wall of the heart, within the ventricle, and to which the *chordæ tendineæ* (cords which are attached to the bicuspid and tricuspid valves to keep them from ascending into the auricles) are attached.

papillo'ma. A tumor consisting of epithelium that sometimes grows in the skin or mucous membrane, especially at or near the orifices of the body. It usually begins as a wart or ulcer.

pa'pule. A small, solid elevation of the skin.

papu'loid. Resembling a papule.

Paquelin's Cautery. See Cautery.

par (Lat. *equal*). A term used before other words to denote a pair; as **p. vagum**, the vagus nerves.

para. A prefix derived from the Greek, signifying beside, out of, on the other side, a part of, almost.

paraänesthe'sia. Anesthesia of the lower half of the body.

paracente'sis (Gr. *para*=beside and *kenteō*=to prick, to puncture). The puncture of a cavity to facilitate the draining off of effusions.

paradox'ic. Contrary to general opinion.

par'affin. (1) Any saturated hydrocarbon of the methane (marsh-gas) series. (2) A fat-like substance produced in the dry or destructive distillation of various forms of organic matter as coal, peat, etc.

par'aform, paraformaldehyd. A white crystalline substance, that consists chemically of two molecules of formaldehyd. It is soluble in both water and alcohol. For action see Formaldehyd.

paraglob'ulin, serum globulin. A protein contained in the blood, blood-cells and lymph.

paragor'ic. See Opium.

paral'dehyd (Gr. *para*=beside and *aldehyd*). A drug derived from aldehyd that has anodyne and hypnotic qualities. Dose 30-60 minims.

paral'ysis. (Gr. *para*=beside and *lyo*=to loosen). A loss of motion or of sensation in a living part due to injury to or pressure upon a nerve or

nerve center. **P. agitans**, shaking palsy, Parkinson's disease. See Palsy. **Creeping p.**, locomotor ataxia. **Diphtheritic p.**, that due to the toxins of diphtheria; the throat and eye muscles are the ones most frequently affected; regurgitation of food is usually one of the first symptoms of paralysis of the throat. **Infantile p.**, acute anterior poliomyelitis. **Infantile spastic p.**, stiffening of a part of the body that sometimes occurs in infants as the result of the rupture of a cerebral blood-vessel during delivery and consequent pressure of the blood-clot upon the brain. **General p.**, see Paresis. **Sensory p.**, anesthesia. **Saturday night p.**, that which sometimes occurs in people who fall asleep after a drunken debauch in a position that occasions pressure by some hard object upon a nerve or nerves.

paralyt'ic. One affected with paralysis.

paral'yzant. Any agent that causes paralysis.

paramne'sia (Gr. *para*=almost and *amnesia*=forgetfulness). A derangement of the memory in which the meanings of words, but not words, are forgotten.

paranephri'tis. Inflammation of tissues near the kidneys.

paranoi'ac (Gr. *madness*). An excessively eccentric person. An individual laboring under some fixed delusion.

parapha'sia (Gr. *para*=near and *aphasia*=speechlessness). A partial aphasia in which words are used in senseless combination.

par'aplasm. The more fluid portion of cell protoplasm.

paraple'gia. Paralysis of the lower half of the body.

par'asite (Gr. *para*=beside and *sitos*=food). An animal or plant subsisting upon, or within, another organism.

parasit'icide. Any agent that will destroy parasites.

parathy'roids (Gr. *para*=near and *thyroids*). Small glands, usually four, situated near the thyroid. Their function, which is distinct from that of the thyroid, seems to be to destroy toxic material formed elsewhere in the body.

paren'chyma (Gr. *para*=beside and *chyma*=an infusion). The soft tissue of organs. The essential or vital elements of organs.

par'esis (Gr. *want of strength*). General paralysis of the insane or dementia paralytica. A condition thought to be due to a chronic meningitis. It is characterized by a progressive insanity and strokes of paralysis, until finally the patient is both demented and paralyzed. The condition is incurable.

paridro'sis. Any abnormal condition of the perspiration.

par'ies, pl. **parietes** (Lat. *a wall*). The walls of a cavity or an organ.

pari'etal. Belonging to the walls. **P. bones**, the two bones forming the greater part of the sides of the skull.

Paris Green. A salt of copper and arsenic acid.

parodon'toid. A tumor on the gum.

parony'chia. See Felon.

parot'id (Gr. *para*=near and *otos*=ear). Near the ear. **P. glands**, two glands, situated one at each side of the face,

below and in front of the external ear. Each one connects with the mouth by means of a short duct. They are the largest of the salivary glands.

parotidectomy. Removal of a parotid gland.

parotiditis. **parotitis, mumps.** Inflammation of a parotid gland.

paroxysm. (1) A convulsion. (2) A sudden transitory intensification of symptoms. (3) The periodic attacks characteristic of certain diseases.

paroxysmal. Relating to or occurring in paroxysms.

parturient. Bringing forth; child-bearing. **P. canal,** the canal through which the fetus passes; *i. e.*, the uterus and vagina.

parturition. Expulsion of the fetus from the uterus.

par'tus. Latin for childbirth.

pas'sive. Not active. Inert.

pas'til. A lozenge.

patel'la (Lat. *patera*=a pan). A sesmoid bone situated in front of the knee joint. The knee-cap.

pathet'ic. Exciting pity.

pathogen'ic (Gr. *pathos*=suffering and *genere*=to produce). Producing disease.

pathol'ogy. The branch of medicine devoted to the study of the nature and cause of disease and of the changes arising in the body as the result of disease.

pec'tin. A carbohydrate of variable character found in fruit and certain plants. It is the base of vegetable jelly.

pec'toral (Lat. *pectoris*=the breast). Or of pertaining to the breast or chest,

pectora'lis muscles. Muscles which cover the anterior chest. The *p. major* is inserted in the humerus and draws the arm downward and forward. The *p. minor* is inserted in the coracoid process of the scapula and depresses the shoulder; also, it assists in the elevation of the ribs during inspiration.

pec'tose. A substance contained in unripe fruit and plants which changes to pectin as ripening occurs.

pediat'rics (Gr. *paidos*=a child and *iaomai*=to heal). The branch of therapeutics concerned with the treatment of the diseases of children.

pedi'atrist. A specialist in pediatrics.

ped'icle. The attachment of a tumor.

pedic'ular (Lat. *pediculus*=a louse). Associated with lice.

pediculo'sis. Infested with lice.

ped'icure (Lat. *pes*=foot and *cura*=cure). A chiropodist; one who treats minor disorders of the feet.

ped'uncle. A pillar or support.

pellag'ra. A skin disease common among the poor of Southern Europe. It is thought to be due to eating diseased maize.

pel'let. A small pill.

pelvim'eter. An instrument for measuring the diameters and capacity of the pelvis.

pelvim'etry. Measurement of the pelvis. **Digital p.**, that performed with the hand. **Instrumental p.**, that done with a pelvimeter. **Internal p.**, measurement of the interior of the vagina.

pel'vis (Lat. *basin*). (1) A basin-like cavity. (2) The bony cavity forming the lowest

part of the trunk. It is bounded behind by the sacrum and coccyx and at the sides and in front by the ossa innominata. **Brim of p.**, the upper extremity of entrance of the cavity, known also as the *inlet* and *superior strait*. **False p.**, the part of the cavity above the illo-pectineal line. **Floor of p.**, the muscles and other tissue forming the lower boundary of the cavity. **Outlet of p.**, the lower opening of the true pelvis, called also the *inferior strait*. **True p.**, the part below the ileo-pectineal line.

pen'dent (Lat. *pendeo* = to hang). Hanging. Suspended.

pen'dulous. Hanging from a fixed point. Not stationary.

pen'etrating. Entering deeply.

pen'is. The male organ of copulation.

pen'tane, **amyle hydride** (Gr. *pente* = five). A colorless liquid obtained from certain tar oils and from petroleum by fractional distillation. It is so called because each molecule contains 5 atoms of carbon (C_5H_{12}).

pep'sin. An enzyme found in the gastric juice that aids in the digestion of proteids.

pepsino'gen. A zymogen secreted by the gastric cells which is changed to pepsin when it comes in contact with the hydrochloric acid of the gastric juice. See Zymogen.

pep'tic. Pertaining to pepsin or to the digestion of proteins.

pep'tid. One of the products of the digestion of proteins. When digestion is carried further, peptids are changed to amino acids.

pep'tones. Products of protein digestion. By further diges-

tion peptones are changed to peptids and amino acids.

per. A Latin preposition used as a prefix to designate through, completeness, very.

perchlo'rid. A chlorid containing more chlorid than the ordinary chlorid.

per'colate. To strain.

percus'sion. (1) The act of striking a part with sharp, light blows in order to determine the thickness of underlying structures, the elasticity of the tissues, the presence of fluids, etc. (2) One of the movements of massage.

per'forated. Containing holes.

perfora'tion. A hole.

per'i. A Greek prefix signifying around.

pericardi'tis. Inflammation of the pericardium.

pericar'dium (Gr. *peri* = around and *kardia* = the heart). The serous membranous sac, one side of which encloses the heart and the other covers the surrounding tissues. It secretes a small amount of serous fluid which enables the two surfaces to glide smoothly over each other during the movements of the heart.

perichon'drium (Gr. *peri* = around and *chondros* = a cartilage). The membrane covering a cartilage.

per'ilymph. A clear liquid contained between the osseous and the membranous labyrinth of the ear.

perine'al. Pertaining to the perineum.

perineph'ric. Around the kidney.

perine'um. The muscles and other soft tissues situated between the anus and the genital organs and entering

into the formation of the floor of the genital canal.

per'iod. (1) An interval of time. (2) The time consumed in the completion of a cycle or series of events.

period'ic. Occurring at intervals.

perios'teal. Pertaining to the periosteum.

perios'teotome. An instrument for cutting the periosteum.

perios'teum. The highly vascular membrane that surrounds the bones. Many of the blood-vessels supplying the bones are continuations of those of the periosteum, therefore destruction of the periosteum is likely to interfere with the nutrition of the bone and thus cause it to necrose.

periosti'tis, periosteitis. Inflammation of the periosteum.

periosto'ma, periostosis. A bony growth around a bone.

periph'ery (Gr. *periphēreia* = the circumference of a circle). The outer or superficial portions of a body.

peristal'sis (Gr. *peristello* = to surround). The wave-like contractions by means of which hollow organs, such as the stomach and intestines propel their contents along.

peristal'tic. Pertaining to peristalsis.

peritone'al. Pertaining to the peritoneum.

peritone'um (Gr. *peri* = around and *teino* = to stretch). A serous sac, one side of which lines the abdominal cavity, while folds of the other side are reflected back over the abdominal viscera. These folds are distinguished by various names and two important ones are the omentum and mesentery.

peritoni'tis. Inflammation of the peritoneum.

perles. (1) Small gray masses expectorated during attacks of asthma. (2) Capsules.

permang'anate. Any salt of permanganic acid; *i. e.*, an acid derived from manganese.

per'meable. Capable of being permeated or penetrated. The term is used more especially in connection with a substance that permits the passage of fluids.

perm'uate. To penetrate, fill, or pervade.

pernic'ious (Lat. *perniciēs* = destructive). Hurtful. Likely to kill or destroy.

perone'al (Gr. *perone* = the fibula). Pertaining to the fibula.

perox'ide. The oxide of any element that contains a greater amount of oxygen than other oxids of that element. **P. of hydrogen**, ($H_2 O_2$) an aqueous solution of oxygen. It breaks down readily into water and oxygen and its disinfecting properties are due to the oxygen that is liberated. The oxygen also unites with, and disintegrates, masses of infected matter and suppurating tissue, and an active effervescence accompanies the process, which, when hydrogen p. is injected into infected wounds, brings the suppurating matter to the surface. Light and heat hasten the decomposition of hydrogen p., therefore it must be kept cool, tightly corked, and in dark bottles.

perspira'tion. (1) Sweating. (2) The sweat, the liquid secreted and excreted by the sudoriferous glands of the skin. The average amount normally discharged during 24

hours is about 1 quart, but the amount can be increased to as much as 1 quart per hour.

pertus'sis. Whooping-cough.

perver'sion. Turning aside from a normal course. Distortion.

per'vious. Permeable. Capable of being penetrated.

pes (Lat. *foot*). A support.

pes'sary. An instrument sometimes inserted in the vagina to support the uterus or rectum.

pes'simism. A morbid inclination to expect the worst.

pest. The plague.

pes'tilence. (1) A severe epidemic. (2) A virulent epidemic disease.

pete'chia. Minute red, brown, or purple spots due to hemorrhage into the skin.

petit mal *pet-e mal'* (Fr. *little illness*). An epileptic attack in which convulsions do not occur.

petrifica'tion (Lat. *petra* = a stone and *facere* = to make). The act of changing a substance into a stone or stone-like matter.

Petri Dish. A small shallow glass dish with a cover, used in bacteriological work.

pétrissage *pa-tris-ahzh'*. Kneading. One of the procedures of massage.

pe'tro (Lat. *petra* = stone). A prefix denoting hardness or connection with the petrous portion of the temporal bones.

petro'leum (Lat. *petra* = a stone and *oleum* = oil). A term used for various inflammable, oil-like substances found in many parts of the earth where they are formed by the gradual decomposition of vegetable matter beneath the surface.

Peyer's Patches. Groups of lymphatic glands contained in the small intestine, more especially in the ileum.

phagede'na *fa-ged-ē'-na* (Gr. *phagein* = to eat). An obstinate ulcer that spreads out into surrounding tissues.

phagocyte *fag'-o-sīt* (Gr. *phagein* = to eat and *kytos* = a cell). A cell that possesses the power of absorbing or enveloping bacteria and other cells and thus destroying them. The phagocytes of the blood constitute one of the important defenses of the body against disease.

phagocyto'sis. The process carried on by phagocytes.

phagol'ysis. The destruction of the phagocytes.

phalanges *fa-lan'-jēz* pl. of phalanx.

pha'lanx. Any bone of a finger or toe.

pharmaceut'ic, pharmaceutical. Pertaining to drugs.

phar'macist. One who dispenses drugs; an apothecary or druggist.

pharmacol'ogy. The science or study of the nature and action of drugs.

pharmacope'ia. A book compiled under the supervision of the government or of a national committee, establishing the strength, purity, selection, and modes of preparing medicinal agents.

pharynge'al. Pertaining to the pharynx.

pharyngis'mus. Spasm of the pharynx.

pharyngi'tis. Inflammation of the pharynx.

pharyn'goscope. An instrument for inspecting the pharynx.

phar'ynx. The musculo-membranous sac between the nose, mouth, and esophagus.

phenac'etine. A coal-tar derivative that has antiseptic and analgesic properties. Dose, 5-15 grains.

phe'nol. Carbohic acid.

phenolphthalein *fe-nol-tha'-le-in.*

A coal tar compound, a clear solution of which turns pink when a base is added, and becomes colorless again when an acid is added.

phenom'enon, pl. **phenomena** (Gr. *phainomai* = to appear). A remarkable or unusual appearance. Anything seen. An objective symptom.

phi'al. A small bottle.

phimo'sis (Gr. *phimos* = a muzzle). Tightness of the foreskin or prepuce which prevents its being drawn back so as to uncover the glans penis. A similar condition of the clitoris.

phlebec'tomy. Removal of a vein or part of a vein.

phlebi'tis. Inflammation of a vein. This condition is a common complication of disease in which the blood contains toxic material. It is dangerous because a thrombus, followed by embolism is likely to occur.

phlebo'tomy. The opening of a vein. This operation is performed when it is necessary to remove blood from the body. The most common condition rendering this necessary is that caused by coal gas poisoning, in which the carbon monoxide of the gas has entered into such strong combination with the hemoglobin that it cannot be dissociated and the hemoglobin cannot therefore unite with oxygen. The quantity of blood taken—about $\frac{1}{2}$ -1 pint

—is replaced with physiological salt solution.

phlegm *flem.* (1) Mucus in the throat. (2) A fluid or humor which in olden days was thought to exist in the body.

phlegmatic *fleg-mat'-ic.* Apathetic, dull. So called because, formerly, the condition was thought to be due to an excess of phlegm in the body.

phlegmon *fleg'-mon.* Inflammation of the connective tissues. **P. gas**, that due to infection by the gas bacillus or *bacillus Welchii* and characterized by the formation of gas in the tissue. It is an uncommon, but serious infection.

pho'bia. Fear.

pho'nal (Gr. *phone* = voice). Pertaining to the voice.

phonet'ics (Gr. *phonetikos*). Pertaining to sound.

phos'phate. Any salt of phosphoric acid. See Phosphorus.

phos'phated. Containing phosphorus.

phosphores'cence. The power which certain substances have of emitting light in the dark after due exposure to a strong light.

phos'phorus (Gr. *phosphoros* = giving light). A non-metallic acid-forming solid element. In its free state it is very poisonous and highly inflammable. It never occurs free in nature but exists in various combinations in rocks and minerals and in plant and animal tissues. In the animal body it exists chiefly in the form of phosphorized proteins, phosphorized fats and phosphates. Such phosphorus compounds are essential to all the tissues of the body. They occur, especially the

phosphorized fats, in large quantities in the brain and other parts of the nervous system, and calcium phosphate constitutes about 85 per cent. of the mineral matter of bone. Normally, the body supply of phosphorus is obtained from food, especially eggs, milk, and cereals. An extra supply, however, is often given in some medicinal preparation of the phosphates in the treatment of debility, faulty nutrition, and like disorders.

photopho'bia (Gr. *photo*=light and *phobia*=fear). An abnormal sensitiveness to light.

phren'ic (Gr. *phren*=the diaphragm and the mind). Pertaining to the diaphragm or to the mind.

phthisis ti'-sis (Gr. *phthiō*=to waste, to decay). See Tuberculosis.

phys'ic. (1) The science of medicine. (2) A medicine, especially a cathartic.

phys'ical. Pertaining to the body or to physics. **P. examination,** the examination of a patient's objective symptoms by means of inspection, auscultation, percussion, etc. **P. signs,** the symptoms discovered by a physical examination.

phys'ics. The science which deals with the forces of nature, the properties of matter, and the changes that occur in matter without involving a change in its chemical composition.

physiog'nomy. (1) The face or its expression. (2) The art of discovering characteristics or of diagnosing by inspection of the face.

physiol'ogy. The science which treats of the various functions

of animal and vegetable organisms and of the changes which take place in such bodies as the result of the performance of their functions.

physiolog'ical salt solution. A solution of sodium chlorid which contains about the same percentage of salt as does the blood-plasma; *i. e.*, 0.9 per cent.

physique fis-ēk'. Natural constitution. The form of the body.

physostig'ma. A drug obtained from the seed of the Calabar bean. It is a spinal depressant, and is therefore used in tetanus; a muscle stimulant, and thus increases peristalsis; and a myotic. Dosage: extract, $\frac{1}{16}$ – $\frac{1}{8}$ grain; fluid-extract 1–3 minims; tincture, 5–15 minims.

pi'a ma'ter. The innermost membrane lining the brain and spinal cord.

pigeon-breasted. Having an abnormally prominent breast-bone.

pig'ment. (1) Any normal or abnormal coloring matter of the body. (2) Any dye, or paint. **P. cells,** those which secrete pigment.

pigmenta'tion. The excess formation or deposition of pigment.

piles. See Hemorrhoids.

pilocar'pin. An alkaloid obtained from the *Pilocarpus* or *Jaborandi*. It is a powerful diaphoretic. Dosage: fluid-extract, 15–30 minims; p. hydrochlorate, $\frac{1}{8}$ – $\frac{1}{4}$ grain.

pilu'la. Latin for pill.

pimen'ta. Allspice. It is used as an aromatic and carminative. Dose, 5–30 grains.

pink-eye. See Ophthalmia.

pint (Lat. *octarius*). 16 ounces, apothecaries' measure. Symbol O.

pin-worm. See Ascaris.

pipet', pipette'. A small glass tube for taking up liquids.

pi'siform bone. One of the small bones of the wrist.

pitch'blend. A black mineral compound, consisting principally of uranium oxide, from which radium is obtained.

pitu'itary (Lat. *pituita* = phlegm). Secreting mucus. **P. body**, see Hypophysis. The anatomists of early days thought the p. body secreted phlegm—mucus—and discharged it into the nose; hence its name. **P. membrane**, the membrane lining the cavities of the nose; called also the *Schneiderian membrane*.

pityri'asis (Gr. *bran*). A class of skin disease, characterized by the formation of scale-like patches.

placenta *plas-en'-ia*. The circular, flat, highly vascular structure in the impregnated uterus which forms the principal medium of communication between the mother and fetus. **P. prævia**, that condition in which the placenta is situated over or near the mouth of the uterus. It is likely to result in a fatal hemorrhage.

plague *plāg*. The bubonic plague. A severe epidemic.

plaque *plak*. A patch.

plasma. (1) The fluid portion of the blood. It consists of water holding in solution protein matter, fat, sugars, lecithin, extractives—such as urea—salts, internal secretions, antitoxins, and similar substances, nitrogen, carbon di-

oxid. (2) The lymph minus its corpuscles.

plasmo'dium. A mass of protoplasm formed by an aggregation of ameba-like cells. **P. malaria**, the organisms that cause malaria. There are three species, viz.: the *tertian parasite*, the *quartan parasite*, and that which causes *estivo-autumnal malaria*. See Malaria.

plas'tic (Gr. *plasso* = to form, to mold). (1) Capable of being molded or bent. (2) Tending to form tissue. **P. operations**, those performed to restore lost parts or to improve the shape of deformed parts.

pla'ting. The preparation of bacterial cultures in Petri dishes or other plates.

plat'num. A heavy grayish-white metal element of high luster. It is very malleable and ductile, very difficult to melt, very inert, a good conductor of electricity, and it is remarkable for its property of acting as a catalytic agent in a large number of chemical reactions. These properties make it invaluable in chemical and other laboratories.

pled'get. A wad of absorbent cotton, lint, gauze, or the like.

ple'onasm (Gr. *pleon* = more). (1) Having too many parts. (2) The use of more words than necessary to express an idea.

pleth'ora (Gr. *pleres* = full). A condition characterized by fullness of the blood-vessels, high tension of the pulse, a florid complexion, and general plumpness of the body.

pleth'oric. Relating to plethora.

pleu'ra, pl. **pleuræ** (Gr. *a rib*). One of the two sacs of serous membrane that invest the lungs and line the thoracic

cavity. This membrane secretes a lubricating fluid which keeps its surface moist and thus prevents friction.

pleu'risy. Inflammation of the pleura. **Dry p.**, that in which there is a deficiency of secretion. **Wet p.**, that in which an excessive quantity of fluid accumulates in a pleural cavity.

pleu'sus (Lat. *a fold, a plait*). A network of nerves or blood-vessels.

plug. A stopper. A mass of substance that causes stoppage in a vessel or tube.

plumba'go. See Graphite.

plum'bi, plum'bum. See Lead.

pluri'para. See Multipara.

plurip'olar. A nerve-cell that has several poles.

plutoma'nia (Gr. *ploutos* = wealth). A form of mania in which the patient thinks he is possessed of great wealth.

pneumat'ic (Gr. *pneumatikos* = pertaining to air or breath).

(1) Of or pertaining to gaseous fluids or respiration. (2) Filled with gas or air.

pneu'mo (Gr. *pneumon* = a lung). A prefix used to denote relation to the lungs.

pneumococ'cus. The diplococcus that is one of the common causes of pneumonia and also of inflammation in other parts of the body. It is also called *micrococcus lanceolatus* and, after its discoverer, *Frankel's pneumococcus*.

pneumo'nia. Inflammation of the lungs. **Bronchial, catarrhal or lobular p.**, that in which groups of alveoli in different parts of the lungs, and not whole lobes, are affected. It is usually due to an extension of an acute bronchitis to the alveoli. It is the most com-

mon form of pneumonia in young children, the aged, and occurring as a complication of other diseases. It is sometimes due to infection by the pneumococcus, but a number of other organisms will produce the condition. **Embolic p.**, that due to embolism. **Hypostatic p.**, that due to stasis of the blood in the lung capillaries as a result of poor circulation. It occurs most frequently in the aged, when they are obliged to lie in one position for a long time. **Inhalation p.**, that due to the inhalation of irritating matter. **Interstitial p.**, a chronic form of p. in which there is an increase of the interstitial tissue and a decrease of the soft, elastic lung tissue. **Lobar p.**, known also as *croupous p.*, that in which a whole lobe or lobes are involved; it is always caused by the *pneumococcus*. **Migratory p.**, that in which one lobe after another becomes consolidated. **Stages in p.**, the condition that the lungs assume at different stages of the disease; viz.: (1) the stage or condition of congestion or engorgement; (2) the stage of red hepatization, in which the affected part of the lung is red and firm from the accumulation of exudate in the air cells; (3) the stage of gray hepatization, in which the exudate degenerates; (4) the stage of resolution in which the ferment set free by the disintegration of the white corpuscles in the exudate causes the liquefaction of the latter and the resulting liquid is absorbed and carried away by the blood. **Symptoms of p.**, the usual more important ones are: A chill, followed by a rise of temperature, persistent high

fever for several days, which, usually, falls by lysis; marked dyspnea and cyanosis; pain in the chest; cough, which is short and dry at first, but, later, is accompanied by expectoration. The sputum, at first, is a frothy, serous fluid mixed with mucus; later, it is tenacious and streaked with blood or rust-colored. Sometimes it contains so much disintegrated tissue and blood that it resembles prune juice. Lessening in the amount of blood present is a favorable symptom.

pneumotho'rax. The presence of air in the pleural cavity. This may be caused by a wound in the chest, which penetrates the pleura lining its wall, or by rupture of a tubercle or of an abscess of the lung into the cavity.

pneumogas'tric nerve. The tenth cranial or vagus nerve; it sends fibers to the heart, lungs, and stomach.

podag'ra (Gr. *podo*=a foot and *agra*=a seizure). See Gout.

podoph'yllin. A resin of podophyllum. Dose $\frac{1}{8}$ – $\frac{1}{2}$ grain.

podophyl'lum. A drug obtained from the May apple or mandrake. It is used as a cathartic and cholagogue. Dosage: extract, 2–10 grains; fluid-extract, 5–30 minims.

poi'son (Lat. *polio*=a draft). Any substance that, whether taken into the body or formed within the body, is injurious to health. For treatment of poisoning see page ?

polar'ity. The condition of having poles.

polariza'tion of light. Making light vibrations take place in one direction. The streak or pole of light reflected from a plane mirror, when light falls

upon it, is an example of polarization. When a beam of polarized light is directed upon a solution containing dextrose, the former is turned to the right, but a solution of levulose will rotate it to the left and the degree of rotation will depend upon the strength of the solution. This is therefore, an easy and accurate method of determining the strength of such solutions and it is one of the many uses of polarized light. For practical purposes light is polarized by the use of an apparatus known as a *polarizer* or *polariscope* and the vibrations may be made to take place all in one plane, thus forming a shaft or streak of light, or in circles, or in ellipses.

polyomyeli'tis (Gr. *polios*=gray, *myelon*=marrow, and *itis*=inflammation). Inflammation of the gray matter of the spinal cord. **Acute anterior p.**, inflammation of the anterior or front part of the gray matter of the spinal cord. The disease has occurred in epidemics and experiments tend to show that it is due to germ infection, but no special organism has as yet been isolated. The primary symptoms are a sudden rise of temperature and, usually, convulsions, followed by paralysis of some part or parts of the body. The paralysis may grow less in time, but it seldom disappears, for some of the nerve cells are always destroyed.

Politzer's Bag. A soft rubber bag used for inflating the middle ear.

pollu'tion. The act of rendering impure.

poly. A prefix from the Greek signifying much, many.

polyade'nia. See Pseudoleukemia.

polyarthri'tis. The inflammation of several joints at the same time.

polyclin'ic. A large general hospital and medical school.

polycythe'mia. See Erythemia.

polye'mia. An excessive amount of blood.

polyhydro'sis (Gr. *poly*=much and *hydro* from *hydor*=water). Excessive perspiration.

polymorphonu'clear (Gr. *poly*=many, *morphe*=form, and Lat. *nucleus*). Having nuclei of different shapes as certain white corpuscles have.

polyneuri'tis (Gr. *poly*=many and *neuron*=a nerve). Inflammation of several nerves at the same time.

polynu'clear. Having many nuclei.

pol'yp, pol'ypus, pl. pol'ypi. A tumor with a stalk that grows from a mucous surface as that of the nose, rectum, etc.

polysac'charids. The group of carbohydrates including starches, dextrans, glycogen, cellulose, pectose.

polyu'ria (Gr. *poly*=much and *ouron*=urine). The passing of an excessive amount of urine.

polyv'alent. See Valence.

pons (Lat. *bridge*). A strip of tissue that unites two or more parts. *P. Variolii*, that part of the base of the brain which connects its principal divisions.

poplite'al (Lat. *poples*=ham). Pertaining to the poples—*i. e.*, the posterior surface of the knee. *P. space*, the area behind the knee.

pore. Any small opening upon an exposed surface.

por'ous. Having many open spaces.

por'tal circulation. The passage of the blood from the gastrointestinal tract and spleen, via the portal vein, to and through the liver and out by the hepatic vein to the inferior vena cava.

posi'tion. The way of placing, or the posture of, a patient.

pos'itive. Not negative.

post (Lat. *after*). Used as a prefix to denote after or behind.

post anesthet'ic. After an anesthetic.

poste'rior. Situated at the back.

post fe'bril. Following fever.

post'humous (Lat. *postumus*=coming after). Born after the death of the father.

post mor'tem. After death.

postna'sal. Behind the nose.

post par'tum. After childbirth.

post'ulate (Lat. *postulo*=to speak). A supposition assumed without positive proof, as its truth seems too self-evident to require proving.

potas'sium (Symbol K). A metallic element of the alkali group. It is not found free in nature, but it exists in various combinations in many rocks and minerals and in plants and animals. Many of its salts are used in medicine, especially bromid—see Bromid; p. chlorate— KClO_3 —which is used as a disinfectant mouth wash; p. iodide— KI —see Iodides; p. permanganate— KMnO_4 —see Permanganate. *P. carbonate*— K_2CO_3 —a salt of carbonic acid and p., known also as potash (*potashes*) and lye; it was formerly obtained from wood ashes and was much

used in making, or instead of soap, but sodium carbonate, being more abundant and cheaper, has largely taken its place. **P. hydroxid**—KOH—caustic potash, a very corrosive hydrate of potassium.

po'tency (Lat. *potentia* = power). The power or efficacy that a drug has as a medicine.

po'tion. A large dose of medicine.

Pott's Disease. Caries of the spine. It is usually due to tubercular infection.

pouch. A small sac.

pound. 16 ounces avoirdupois weight and 12 ounces troy or apothecaries' weight.

pre (Lat. *præ* = before). A prefix used to signify before.

precip'itate. (1) To bring to a crisis before time. (2) The solid substance that falls to the bottom of a vessel when, by the use of a chemical, heat, etc., a soluble solid that is in solution is rendered insoluble. **P. labor**, that of abnormally short duration.

prediges'tion. The partial digestion of a food before its use.

predispo'sing. Adapting.

predisposi'tion. Susceptibility. Having a natural tendency.

preg'nancy. The state of being with child. **Abdominal p.**, that in which the ovum develops in the abdominal cavity. **Duration of p.**, about 280 days or nine calendar months. **Ectopic p.**, that in which the ovum develops out of place. **Extra-uterine p.**, that in which the ovum does not reach the uterus. **Fallopian or tubal p.**, the development of the ovum in a Fallopian tube.

prehen'sile (Lat. *prehendere* = to lay hold of). Fitted for grasping.

premature'. Before time. **P. infant**, an infant born after the period of viability, but before the last two weeks of normal pregnancy. **P. labor**, that which occurs during the last three months of the normal term of pregnancy, but before its completion.

premen'strual. Before menstruation.

premon'itory. Indicating, or giving warning, beforehand.

preop'erative. Before operation.

prep'uce. The skin covering the glans penis, known also as the foreskin.

presbyo'pia. Old-sightedness, *i. e.*, the diminution of the elasticity of the refractory apparatus of the eye, in consequence of which the light rays entering the eye do not come to a focus on the retina and vision is thus impaired. The ill-effects of the condition are overcome by wearing convex glasses.

prescrip'tion. The directions for the preparation and administration of a medicine or a treatment given by a physician.

presenta'tion. The part of the fetus which appears at the os uteri in labor.

pres'sure. Weight, tension, compression. A constraining or impelling force. **Blood p.**, that exerted upon the walls of the blood-vessels by the blood. The average normal pressure exerted by the blood on the walls of the brachial artery, in adults of from 20-35 years, is, during systole, about 110 mms. to 120 mms., and, during diastole, about 75 mms. to 85 mms. It is less in youth and greater in old age. **Intraocular p.**, that exerted

by the contents of the eyeball. **P. sense**, the sense by which pressure upon, or anything touching, the body is perceived; it is due to certain nerve endings in the skin and mucous membrane.

pri'mary. (1) First in time or in importance. (2) A disease occurring independent of any other.

primigrav'ida (Lat. *prima* = first and *gravida* = pregnant). A woman who is pregnant for the first time.

primip'ara (Lat. *prima* = first and *parere* = to bear). A woman who has brought forth or is giving birth to her first child.

primor'dial. Primitive. Of an undeveloped nature.

prin'ciple. (1) A source or origin. (2) An important constituent point. **Active p.**, the constituent of a drug upon which its medicinal action depends.

pro (Gr. *pro* = before). A prefix denoting before.

pro'cess. A small projecting point.

prodrom'al. Pertaining to the early stages. **P. symptoms**, those that arise before the acute symptoms of a disease manifest themselves; *e. g.*, during the period of incubation of an infectious disease.

prod'uct. That which is produced.

prog'nosis. A forecast or opinion as to the probable issue or result of a disease.

prognos'tic. A symptom or condition that helps in forming an opinion as to the probable issue of a disease.

projec'tile. Projecting or impelling forward.

prolap'se. A falling down of an organ.

prolifera'tion. An increase of morbid centers or cells in a diseased organ.

prolif'ic. Productive. Fruitful.

prom'ontory. A projecting ridge or prominence.

prona'tion. The act of turning the hand palm downward. It is the opposite of supination.

prona'tors. Muscles that cause pronation.

prone. (1) Inclined by disposition (2) Lying with the face downward. (3) The hand turned palm downward.

prop'agate. To generate. To produce.

profane'. A gaseous hydrocarbon. It is one of the constituents of petroleum.

propep'sin. See Pepsinogen.

prophylac'tic (Gr. *pro* = before and *phylasso* = to guard). To guard against disease by observation of the rules necessary to the preservation of health or prevention of disease.

propul'sion. The act of driving forward.

pros'tate. A glandular body in the male, which is around the neck of the bladder. It secretes a fluid which is discharged into the urethra and assists in the discharge of the spermatozoa.

prostatec'tomy. Excision of the prostate gland or of a portion of it.

prostitu'tion. Promiscuous sexual intercourse.

prostra'tion. Exhaustion. **Nervous p.**, see Neurasthenia.

protar'gol. A combination of albumin and 8 per cent. silver that is used in 0.2-10 per cent. solutions in the treat-

ment of purulent conditions due to gonococcus infection.

pro'tease. Any ferment that digests proteins.

pro'teid. An obsolete term for certain proteins.

pro'tein. Very complex and usually non-crystalline compounds containing C, H, O, N, usually S, and sometimes P and Fe. There are three distinct classes of proteins and of these there are several subdivisions. Thus, there are: (1) *simple p.* the more common ones of which are albumins (*e. g.*, white of an egg, albumin of milk, blood, etc., myogen of muscle); *globulins* (*e. g.*, serum globulin of the blood, myosin of muscle); *glutelins* and *alcohol-soluble proteins* (*e. g.*, glutenin and gliadin of cereals); *albuminoids* (such as gelatin). (2) Conjugated proteins, *i. e.*, those in which the protein molecule is attached to some other compound; important ones are *glycoprotein* (*i. e.*, one containing a carbohydrate molecule); *nucleoproteins* (compounds of nucleic acid and proteins contained in the nuclei of cells); *phosphoproteins* (phosphorus-containing compounds) *e. g.*, caseinogen of milk and vitellin of eggs; *hemoglobin*; *lecitho-proteins* (those containing lecithin). (3) Derived proteins, *i. e.*, products of the hydrolysis of other proteins. (4) Secondary derived proteins, *i. e.*, more simplified products of hydrolysis; *e. g.*, proteoses, peptones, peptids.

proteol'ysis (Gr. *protos* = first and *lysis* = setting free). The digestion of proteins.

proteolyt'ic. Any ferment or other agent that digests proteins.

pro'teose. One of the intermediary products of the digestion of proteins.

pro'to (Gr. *protos* = first). A prefix meaning first.

pro'toplasm (Gr. *protos* = first and *plasma* = anything formed). The semi-fluid, usually colorless, matter which is the basic substance of both the cytoplasm and nuclei of cells.

prototox'in. The constituent of a toxin which combines most readily with an antitoxin.

protozo'a pl. of **protozoön.** A class of animal organisms consisting of one cell or a few cells, which belong to the lowest group of the animal kingdom. Many species are parasitic upon various plants and animals.

protryp'sin. See Trypsinogen.

prox'imal. Nearest the center or trunk. The opposite of distal.

pruri'tis. An intense degree of itching.

psuedo (Gr. *pseudēs* = false). A prefix signifying not genuine, not conformable to type.

pseu'do angi'na. A nervous condition resembling, but not typical of, angina pectoris.

pseu'docrisis. A false crisis.

pseudomembra'nous croup. A condition of the throat resembling that in diphtheria, but the membrane is caused by the streptococcus pyogenes or other pus-producing organisms, and not the bacillus diphtheriæ.

pseudoleuke'mia, Hodgkin's disease. A fatal disease marked by a progressive anemia and enlarged lymph glands, but the excess of white corpuscles in the blood is not as marked as in leukemia.

pseu'dopod, pseudopodium. A projection of protoplasm which some organisms, as the ameba, extend temporarily and which serves them as a means of locomotion.

psori'asis. A non-communicable, chronic, inflammatory disease of the skin, characterized by red, scaly, elevated lesions.

psy'chic. Pertaining to the mind.

psychol'ogy. The science which treats of the nature, development, and functioning of the mind.

psychop'athy (Gr. *psyche* = mind and *pathos* = disease). Any mental disease. Insanity.

psycho'sis. Mental disorder not due to any organic disease.

psychother'apy. (1) The treatment of disease by suggestion or other mental influence. (2) The treatment of mental diseases.

pterygium ter-ij'-eum. A thickening of the conjunctiva.

ptomain tō-mān' (Gr. *ptoma* = a dead body). Chemical compounds basic in character (*i. e.*, able to combine with an acid to form a salt), resulting from the protolytic action of bacterial enzymes upon proteins. Many ptomains are very poisonous, but it is thought that poisoning due to eating decomposed food is often caused by the ingestion of the bacteria producing the ptomain, rather than the latter.

ptō'sis (Gr. *a falling*). (1) A drooping of an upper eyelid, due to paralysis. (2) A prolapse of an organ.

pty'alín (Gr. *ptyalon* = saliva). The ferment in the saliva that

aids in the change of starch to dextrin and maltose.

pty'alism. Excessive secretion of saliva.

pu'berty. The attainment of sexual maturity. The time at which the sexual organs become capable of functioning. In boys this occurs between the ages of 13 and 16 and in girls a year or two earlier.

pu'bes (Lat. *hair*). The hair covering the pubic bone. The part covered by the hair.

pu'bis. The pubic bone.

puđen'dum, pl. pudenda (Lat. *pudere* = to have shame). The external genital organs.

puer'pera. A woman who has been lately delivered of a child.

puerpe'rium. The period of convalescence from the effects of pregnancy and childbirth.

pul'monary. Pertaining to the lungs.

pulp. Soft, moist animal or vegetable matter. **Dental p.,** a soft substance consisting principally of loose connective tissue, cells, blood-vessels, and nerves, which fills the cavity in the center of a tooth.

pulsa'tion. The act of beating or throbbing. The rhythmic beat of the heart or a blood-vessel.

pulse (Lat. *pulsus* = a beating). The distension of the arteries by a wave of blood forced through them by the contraction of the ventricles of the heart.

pulv. An abbreviation for pulveris.

pul'vis. Lat. for powder.

punc'tiform (Lat. *punctum* = a point and *forma* = shape). Resembling a point.

punc'ture. (1) To insert a pointed instrument into the tissue. (2) A wound made with a pointed instrument.

pu'pil. The opening in the center of the iris through which the light enters the eye.

pur'gative, purge. Having the power of purging or cleansing the intestine. A cathartic medicine.

pu'rin bodies. Cleavage products of the nucleo-proteins (important constituents of the nuclei of cells). The principal purin bodies are adenin, guanin, hypoxanthin, and xanthin. The two last mentioned are formed by the oxidation of the two first, and they, when further oxidized, yield uric acid.

pur'pura hemorrhag'ica. A disease characterized by extravasation of blood into the subcutaneous tissue and bleeding from the mucous membrane. The other symptoms vary and may not be marked unless the condition is severe, when anemia will occur. There may or may not be a rise of temperature and associated phenomena. The cause of the condition is unknown.

pu'rulent. Containing, resembling, or consisting of pus.

pus (Gr. *pyon*=matter). The thick, yellow, viscid, fluid product of suppuration. It consists of blood plasma, a few red, but many white, corpuscles, disintegrated tissue, dead and living bacteria and toxins produced by the bacteria.

pus'tule. A vesicle filled with pus. Malignant p., anthrax.

putrefac'tion. The decomposition of dead, nitrogenous, organic substances under the action of bacteria, with the

production of such substances as indol, skatol, ammonia compounds, sulphureted hydrogen, nitrogen, and carbon dioxide.

pu'trid. Rotten.

pyeli'tis. Inflammation of the pelvis of the kidney.

pye'mia (Gr. *pyon*=pus and *haima*=blood). A form of septicemia characterized by the formation of abscesses in various parts of the body.

pylor'ic. Pertaining to the pylorus.

pylor'us (Gr. *pyloros*=a gate-keeper). The opening between the stomach and intestine. It is surrounded by circular muscular fibers, known as the *pyloric sphincter*.

py'o (Gr. *pyon*=pus). A prefix denoting some relation to pus.

pyogen'ic (Gr. *pyon*=pus and *genesis*=birth, production). Pus producing.

pyophylac'tic (Gr. *pyon*=pus and *phyllasso*=to guard). To guard against pus.

pyosal'pinx. Pus in a Fallopian tube.

pyotho'rax. Pus in the pleural cavity. Empyema.

pyr (Gr. *pyr*=fire). A prefix denoting heat or fire.

pyrex'ia (Gr. *pyresso*=to be feverish. A high temperature. Fever.

pyrogen'ic (Gr. *pyr*=fire and *genesis*=producing). Causing fever.

pyu'ria. The presence of pus in the urine.

Q

Q. s. An abbreviation for the Latin *quantum sufficit*=a sufficient quantity.

quad'rate (Lat. *quadratus* = square). Square, four-sided.

quadri. A prefix denoting four.

quadriceps *kwod'-ris-eps* (Lat. *quadri* = four and *caput* = head). A four-headed muscle of the calf of the leg.

quadrilat'eral. Having four sides.

quart (Lat. *quartus* = fourth). The fourth part of a gallon. 2 pints.

quart'an (Lat. *quartanus* = pertaining to the fourth). See Malaria.

quassia *kwos'-she-ah*. A drug obtained from the wood of a tree of tropical America. It is used as a bitter tonic and, in the form of an enema, for the destruction of pinworms. Dosage: fluid-extract, 10-20 minims; tincture, 1-3 drams, infusion (as enema), 1-2 ounces.

quick'lime. Unslaked lime.

quinine'. One of the alkaloids of cinchona. Its principal use is in the treatment of malaria. It is usually given shortly before the time that the embryos of the malarial organism are expected to break from the red corpuscles into the blood, that it may be in the blood when they do so, and destroy them. Quinine is used also as a bitter tonic, as an antipyretic, and to stimulate uterine contractions in labor. Dosage of q. sulphate (the salt most generally used): in malaria, 20-30 grains; for other purposes, 1-10 grains.

quin'sy. Suppurative tonsillitis.

quotid'ian. Occurring daily.

quotient *kwō'-shent*. The result obtained by dividing one quantity by another. **Blood q.**, the number obtained by dividing the amount of hemo-

globin in a specimen of blood by the number of erythrocytes. **Respiratory q.**, the number obtained by dividing the amount of oxygen inhaled by the amount of carbon dioxid exhaled.

R

R. An abbreviation for the Latin *recipe* = take.

rab'id. Affected with rabies. Savage.

rab'ies (Lat. *rabere* = to rage). The term often used for hydrophobia in connection with the lower animals.

racemose *ras'-e-mōs* (Lat. *racemus* = a cluster of grapes). Resembling a bunch of grapes. **R. glands**, those arranged like grapes on a stalk; the salivary and other important secretory glands belong to this type.

rachitic ra-kit'-ic. Pertaining to rickets.

ra'diate. (1) To emit rays or beams. (2) To spread out in all directions from a central point. (3) To sparkle.

radia'tion. The divergence and diffusion of light, heat, etc., from a central point.

rad'ical. (1) Pertaining to the root or source. (2) Extreme measures. (3) A group of elements, common to a series of allied compounds, that act as a unit in a chemical reaction; *e. g.*, the hydroxyl radical (OH), the nitrate radical (NO₃).

radiother'apy. The treatment of disease by radium, Rontgen and other rays.

ra'dium (Lat. *radius* = a ray). A rare metal discovered in pitchblend, by Madam Curie, 1899. It radiates heat, light, and chemical rays and is a

spontaneous source of electricity. Compounds of radium affect a photographic plate even through sheets of metal.

ra'dius (Lat. *a spoke*). The bone on the thumb side of the forearm.

râles *rahls* (Fr. *rattle*). Abnormal sounds, varying in character, that are heard upon auscultation in diseased condition of the lungs or bronchi.

ramifica'tion (Lat. *ramus* = a branch and *facere* = to make). Spreading out like the branches of a tree.

ra'mus (Lat.). A branch.

ran'cid. Musty, sour. Said of fats that have undergone decomposition.

rape. Coitus without the consent of the woman.

rash. An eruption of the skin.

ra'tio (Lat. *proportion*). The relative proportion or magnitude of numbers or of quantities. **Nutritive r.**, the relative degree of digestibility and the relative food value of proteins, fats, and carbohydrates.

ra'tional Reasonable.

rays (Lat. *radius* = a spoke). The beams and currents of heat, light, etc., produced by vibrations in the ether that permeates the universe. The sun is the principal source of the vibrations, but any heated body will produce them. The nature of the ray depends upon the length of the waves produced by the vibrations. **Actinic r.**, the shortest light waves and some that are too short to produce light. It is to these rays that the many chemical changes produced in nature by the action of the sunlight are due. **Color of rays**, see **Color**. **Finsen r.**, the violet and ultra violet

rays (*i. e.*, actinic rays) obtained by making sunlight pass through a lens containing an ammoniacal solution of copper sulphate, which absorbs the other rays. **Heat r.**, rays that affect the temperature sense. These rays are longer than light waves. **Light r.**, those which stimulate the optic nerve. **Röntgen r.**, **X-rays**, a form of radiation discovered by Prof. Röntgen in 1895; the rays themselves, which are produced by a special electrical apparatus, are invisible, but when they are allowed to fall upon certain phosphorescent material, such as barium platino-cyanid or calcium tungstate, they cause it to emit actinic and light rays. These rays have the power to effect chemical changes in a photographic plate; also, all bodies are transparent to the rays though in varying degrees; thus, they pass through the flesh more readily than through bone, and through bones more readily than metal. For this reason, if there is a bullet in, say the hand, and the latter is laid upon a holder containing a photographic plate and the rays turned upon it, the flesh will show on the plate as a faint shadow, the bones will be more clearly defined, and the bullet still more so.

reac'tion (Lat. *re* = again and *agere* = to act). (1) The response which a part makes to stimulation. (2) Counter-action, *i. e.*, opposite action. (3) A chemical change which occurs when two or more substances are brought together.

rea'gent (Lat. *re* = again and *agere* = to act). Any substance which will cause a chemical

reaction. The chemical action usually manifests itself by a change in, or loss of, color, or the formation of a precipitate.

recep'tors. Certain cell substances that have the power of combining with food substances which they take from the blood, and also with the toxins produced by bacteria. See Ehrlich's Theory.

recrementi'tious. Pertaining to secretions that are reabsorbed.

recrudes'cence (Lat. *recrudesce* = to become sore again). A relapse.

rec'to. A prefix used to show some connection with the rectum.

rec'tum (Lat. *rectus* = straight). The lower part of the large intestine.

rec'tus. Latin for straight. The name of certain muscles of the eyes and of the abdomen.

recum'bent. Lying. Reclining.

recu'perate. To regain. To recover.

recur'. To return. To occur again.

reduce'. (1) To restore a part, as a fractured bone, to its normal place and position. (2) The taking away of oxygen from a substance.

redu'cing agents. Substances which have such a strong affinity for oxygen that they remove it from other substances and combine with it.

reduplica'tion. Doubling.

reflec'tion (1) Consideration, meditation. (2) Turning back, as the throwing back of light or heat rays. **Irregular r.**, diffuse reflection; *e. g.*, when light strikes a rough surface or inequalities in the atmosphere, such as those due to dust and moisture, it is

thrown back in a diffuse or scattered manner; were this not the case, it would be dark everywhere except in the direct path of luminous bodies. It is because opaque bodies reflect the light which strikes, or is incident upon, them that they are visible. **Regular r.**, the straight beam of light thrown back from a polished surface, as a mirror.

re'flex. Reflected. An involuntary activity produced as the result of stimulation of motor nerves by impulses transmitted from sensory fibers. Reflex action is independent of the will and is performed without intervention of the higher brain centers. **R. centers**, the centers which control reflex actions; *e. g.*, the respiratory center, the centers of deglutition, vomiting, walking, etc.

re'flux (Lat. *re* = back and *fluxus* = flow). A backward flow.

refrac'tion (Lat. *refringere* = to break apart). Deviation. **R. of light**, the turning of light from the course it is following. This always happens when an oblique ray of light passing through one medium, as air, enters another medium of a different density, as water, glass, or the refractive apparatus of the eye. See Light.

refrac'tive apparat'us of the eye.

The cornea, crystalline lens, aqueous and vitreous humors, ciliary muscle, and suspensory ligament. These parts of the eye cause the bending of oblique rays of light entering through the pupil so that they are brought to a focus with all parallel rays (these are not refracted) on the retina.

refran'gible. Capable of being refracted.

refrige'rant. Any agent that will lower the temperature.

regenera'tion (Lat. *re*=again and *generare*=to beget). The production of new tissue to replace that lost by injury or disease.

regres'sion. (1) The act of turning back. (2) A gradual return of an abnormal condition or of abnormal symptoms.

regurgita'tion (Lat. *re*=back and *gurgitare*=to flood). The return of food before it has reached the stomach; *e. g.*, the casting up of milk by an infant when it is given more than its stomach will hold; the regurgitation of food when there is paralysis of the muscles of deglutition.

relapse'. The return of the symptoms of a disease after, at least, partial convalescence.

relax'. To slacken. To make less tense.

remis'sion. A subsidence of the symptoms of a disease.

remit'tent. Characterized by periodical remissions.

re'nal (Lat. *ren*=kidney). Pertaining to the kidneys.

ren'net. A preparation of the stomach of calves that is used to curd milk.

ren'nin. (1) A substance secreted by the kidneys and absorbed by the blood which is thought to be of importance in maintaining vasoconstriction. (2) The enzyme in the gastric juice that curds milk.

reple'tion. Excessive fullness.

reproduc'tion. The production of offspring. **Asexual r.**, reproduction without the union of germ cells of two sexes.

repul'sion. Driving away. The opposite of attraction.

resec'tion. Removal of a part of a bone or other organ.

res'idue, residuum. That which remains after a part has been removed.

resin *rez'-in.* A class of vegetable substances that are insoluble in water, but soluble in alcohol, ether, and volatile oils. **Gum r.**, one containing gum, resin, and volatile oils.

resis'tance. Opposition.

resolu'tion. (1) The return of a diseased part to its normal condition. (2) The decomposition and liquefying of inflammatory exudations and their consequent absorption and removal by the blood.

resol'vent. Any agent that promotes resolution.

res'onance. The act of resounding. A prolonged sound elicited by percussing the chest or on auscultation during speaking. Decrease of the usual amount of resonance is described as dullness; absence of resonance, as flatness; and increase, as hyperresonance.

resorcin *re-sor'-sin.* A coal-tar derivative with strong antiseptic properties. It is used, externally, in the form of ointments and washes, and also given internally to reduce gastric fermentation and similar disorders. Dose, 1-3 grains.

respira'tion. Breathing. **Cheyne-Stokes r.**, breathing in which the respirations gradually increase in force and frequency up to a certain point and then as gradually decrease until they entirely cease; a short pause ensues when the cycle is repeated. Or, the respiration may gradually increase in force and frequency, and then cease

suddenly instead of gradually. The cause of this form of respiration is unknown. **External r.**, the drawing of air into the air cells of the lungs in inspiration and the diffusion of the oxygen from the air into the blood; the passage of carbon dioxid from the blood into the air cells and its exhalation in expiration. **Internal r.**, the diffusion, that occurs throughout the body, of oxygen from the blood into the tissues and of carbon dioxid from the tissues into the blood and lymph.

res'pirator. A contrivance, applied over the nostrils and mouth, that has some device for holding volatile substances that are to be inhaled.

res'tiform (Lat. *restis*=a cord and *forma*=shaped). Rope shaped. **R. bodies**, two columns of nerve fibers in the medulla oblongata.

restitu'tion. The restoration of health. Replacement of a missing or displaced part.

resuscita'tion. The restoration of consciousness.

retch'ing. An involuntary effort to vomit produced by severe nausea.

rete re'-te (Lat. *net*). A network of nerves or blood-vessels.

reten'tion. The holding back of excretion. **R. with overflow**, the constant voiding of small amounts of urine as the result of a distended bladder.

retic'ular (Lat. *rete*=net). Resembling a net.

ret'iform. Like a network.

ret'ina. The innermost or nervous tunic of the eye. It results from the spreading out of the optic nerve. For function of retina see Vision.

retini'tis. Inflammation of the retina.

retort'. A globular vessel with a long neck that is used for distillation and similar purposes.

retrac'tile. Capable of drawing back or retracting.

re'tro. A prefix from the Latin, signifying backward.

retroce'ding. Going backward or deeper.

retroflex'ion. The backward bending of the upper part of an organ.

ret'rograde. (1) The catabolic processes of metabolism. (2) Changing for the worse.

retropul'sion. Driving back.

retrover'sion. The bending backward of an entire organ.

revul'sion (Lat. *re*=back and *vellere*=to draw). The drawing of blood from a diseased part of the body to another.

rheum rûm, rheu'ma. Any watery catarrhal discharge.

rheum'atism. Acute rheumatic fever, an acute inflammation of the joints attended by a high temperature and associated symptoms, severe pain and attacks of profuse perspiration with an acid odor. The cause is unknown, but it is thought to be a germ. The disease itself is not often fatal but it gives rise to many serious complications and sequels, especially endocarditis. **Chronic r.**, a constitutional disturbance marked by chronic stiffness and pain in the joints. The active cause is unknown, but exposure to cold and wet are predisposing causes. **Muscular r.**, a term applied to many painful conditions of the muscles, especially such as follow exposure to cold and wet.

rheum'atoid. Resembling, but not identical with, rheumatism. **R. arthritis**, stiffening of the joints due to infection by various bacteria as the gonococcus, meningococcus or staphylococcus. **R. arthritis deformans**, a disease that at first resembles articular rheumatism, but it is the small joints that are affected and the stiffening and contractions that occur are permanent. It is not known if the condition is allied to rheumatism.

rhini'tis (Gr. *rhinos* = the nose). Coryza.

rhi'zoid (Gr. *rhiza* = root and *eidos* = form). Resembling a root.

rhi'zomes. The parts of the root-stalk of trees and plants that are under the ground.

rhomboid. Rhomb shaped.



Rhomb

rhu'barb, rheum. Rhubarb acts as a stomachic, cathartic, and astringent. Dosage: extract, 1-5 grains; fluid-extract, 3-20 minims; tincture, 1-4 drams; mixture of r. and soda, 1-8 drams.

rhythm. A measured, recurring movement.

rick'ets, rachitis. A disease of childhood caused by a lack of mineral matter in the body. It is characterized by curvatures and deformities of the bones. The other symptoms vary; sometimes there is fever and also disturbed digestion and nutrition, and there is a tendency to convulsions. The

common cause is lack of proper food.

rigid'ity. Stiffness.

rig'or. (1) A chill. (2) Rigidity. **R. mortis**, the stiffness that occurs after death, due to coagulation of the protein material of the muscle plasma.

ri'ma. A crack or fissure. **R. glottidis**, the small aperture between the vocal cords.

ring'worm. A communicable skin disease excited by a vegetable parasite, the *trichophyton*. It is characterized by one or more rounded scabby patches that differ slightly in character according to the location of the disease; *i. e.*, on the scalp or on the body.

Rochelle *rō-shel'* salts. A hydragogue cathartic consisting of potassium and sodium tartrate. Dose, 2 drams-1 ounce.

Röntgen Rays. See Rays.

roseo'la. Any rose-colored skin rash.

rota'tion. The act of turning round. **R. of polarized light**, the turning of polarized light from its course. There are several substances which will do this; *e. g.*, if a solution of dextrose is put into the polariscope it will turn the light to the right, but a solution of levulose will turn it to the left. As the amount of rotation is proportionate to the quantity of sugar in solution in a given column of fluid, this is an easy method of getting an accurate estimate.

rubeo'la. See German measles under Measles.

ru'bor (Lat. *redness*). The redness caused by inflammation.

ru'ga. Latin for fold.

rum. An alcoholic spirit obtained by distilling the refuse left in sugar boilers.

ru'minant. Chewing the cud. An animal which chews the cud, as oxen, goats, sheep, deer, and antelopes.

rump. The buttock.

rup'ture. Hernia. The bursting of a vessel or organ.

rust. Iron oxid, the reddish-brown deposit that occurs on iron when oxygen unites with it.

S

Sac. A small bag or bag-like organ.

saccharim'eter (Lat. *saccharum* = sugar and *metrum* = measure). An apparatus used to estimate the amount of sugar in a solution.

sac'charin. A coal-tar product 1 grain of which is equivalent in sweetening power to 1 ounce of sugar.

sac'charine (Lat. *saccharum* = sugary). Sugar.

saccharolyt'ic. Any agent that assists in the disintegration of sugars.

saccharomy'ces. See Yeast.

sac'charose. Any of the disaccharids, *i. e.*, the class of sugars which includes cane, beet, and maple sugars, maltose, and lactose.

sac'culated. Containing saccules, *i. e.*, small sacs.

sac'cule. A small membranous sac in the vestibule of the inner ear.

sa'cro. A prefix denoting relation to the sacrum.

sa'crum. The triangular bone formed by the union of five spinal vertebrae. It is situated above the coccyx, below

the lower lumbar vertebra, and between the two innominate bones of the pelvis.

sal. Latin for salt.

salera'tus. Potassium bicarbonate.

sal'icin. A glucosid obtained from willow bark. Its therapeutic action is the same as the salicylates. Dose, 5-15 grains.

salicylate *sal-lis'-sil-āt.* Any salt of salicylic acid. The salicylates are used as anti-rheumatics, antipyretics, antiseptics, and, externally, as anhidrotics. They are cardiac depressants and must be used with care. Dosage of sodium salicylate, 5-30 grains.

salicyl'ic acid. An acid obtained from such plants as wintergreen and sweet birch and, also, from carbolic acid.

sa'line. Salty.

sal'iva. The fluid secreted by the salivary glands. It consists of water, mucin, salts, a ferment—ptyalin—which converts starch into dextrin and maltose, and a small amount of the ferment maltose which converts maltose into glucose.

saliva'tion, ptyalism, i. e., an excessive secretion of saliva.

sal'ol. A product of the action of carbolic acid on salicylic acid. Its action is about the same as the salicylates. Dose 1-10 grains.

sal'open. A derivative of salol. Dose, 5-15 grains.

salpingec'tomy. Excision of a Fallopian tube.

salpingi'tis (Gr. *salpingx* = a trumpet, a tube, and *itis* = inflammation). Inflammation of a Fallopian tube.

salpin'go (Gr. *salpingx* = a tube). Used as prefix to denote some

connection with a Fallopian tube.

salts. Substances formed by certain chemical reactions; *e. g.*, the anion of an acid and an alkali, of an acid and an alkaloid, of a metal and a halogen.

salu'brious (Lat. *salubris*). Conducive to health.

sal'varsan, 606, **paradiamidodioxarsenobenzol - dihydrochlorid.** A preparation of arsenic used in the treatment of syphilis. As it oxidizes very readily when exposed to the air it is put up in vacuum tubes, and as it is very painful when injected into the body in its natural form it is mixed with a solution of sodium hydroxid before it is used. It is administered either intravenously, intramuscularly, or subcutaneously.

salve. An ointment.

san'atol. A proprietary disinfectant containing sulphuric acid and phenol compounds.

sanato'rium. See Sanitarium.

sanguine *sang'-gwin* (Lat. *sanguis*=blood). (1) Full of blood. (2) Hopeful.

sanita'rium. A health resort. A private hospital, especially one devoted to the treatment of special or chronic diseases.

san'itary (Lat. *sanitas*=health). Pertaining to, or conducive to, health.

sanita'tion. Public hygiene. The promotion and maintenance of conditions conducive to health.

san'tonin. A drug used as a vermifuge. Dose, $\frac{1}{4}$ -5 grains.

saphe'nous. Two large veins of the leg; they are known as the *external s.* and the *internal s.*

saponifica'tion (Lat. *sapo*=soap

and *facere*=to make). The making of soap. For centuries, soap was made in the home by boiling fats with lye obtained from wood ashes, and the bases of the processes carried on in the large factories of the present day are the same as those of olden times. When fat and an alkali are boiled together, the glycerin in the fat splits off, leaving the fatty acids free to unite with the alkali. See Soap. Saponification takes place, also, in the small intestines; the lipase, a ferment of the pancreatic juice, activating the process and thus taking the place of the intense heat used in soap making outside of the body.

sapre'mia. Septic infection, especially that due to the absorption of ptomaines produced by putrefactive bacteria.

saprophyte *sap'-ro-fīt* (Gr. *sapros*=rotten and *phyton*=a plant). A plant that grows upon decaying organic matter.

sarcina *sar-si'-nah.* Bacteria that divide in three directions in such a way that, if they remain connected after division, bale-like packets are formed.

sar'co (Gr. *sarkos*=flesh). A prefix denoting some relation to flesh.

sarcole'm'ma. A structureless, transparent sheath which encloses muscle fibers.

sarco'ma, pl. **sarcomata.** A class of malignant tumors composed of embryonic connective tissue. Sarcomata grow in any part of the body and at any period of life. They are the only malignant tumors common in childhood. Secondary growths nearly always

occur and nearly all forms of sarcomata will recur after removal.

sar'coplasm. A cement substance that holds muscle fibers together.

sarsaparil'la. A drug obtained from the roots of certain forms of smilax. It acts as an alterative. Dosage: fluid-extract, $\frac{1}{2}$ -1 dram; syrup, 1-4 drams.

sat'urated. Filled to excess. **S. solution,** one that contains as much of a substance as it can hold in solution at ordinary temperature and pressure.

sat'urnine (Lat. *saturnus* = lead). Relating to, or caused by, lead.

scab. The hard crust of exudates that forms on the surface of an abrasion.

scabies *ska'-be-ēz*. See Itch.

sca'la (Lat. *staircase*). Any one of the three small passages of the cochlea.

scal'pel. A small knife used in surgery.

scaph'oid. (1) One of the small bones of the wrist. (2) One of the bones of the ankle.

scap'ula. The shoulder blade.

scar. The mark left after the healing of a wound.

scarf-skin. The cuticle, epidermis, or outer skin.

scarifica'tion. The making of small incisions in the skin.

scarleti'na. Scarlet fever. An acute highly communicable disease characterized by high fever, a punctiform scarlet rash, sore throat, and a typical condition of the tongue, which on account of its appearance, has been called *strawberry tongue*. Serious complications are common. The cause of scarlet fever is still uncertain. The secretions of the mouth and nose and the desquamated

ing skin seem to contain the infective matter.

sciatic *si-at'-ic* nerves. Two large branches of the spinal nerves which pass down, near the center of each buttock, back of the thighs, to the popliteal region.

sciat'ica. Inflammation of a sciatic nerve.

scl'e'ra. The white of the eye, it is a strong opaque, fibrous membrane. It forms the posterior $\frac{5}{6}$ of the outer coat of the eyeball and is continuous with the cornea, which constitutes the anterior $\frac{1}{6}$ of the coat. It serves to maintain the shape of the eyeball.

scleri'tis (Gr. *s leros* = hard and *itis* = inflammation). Inflammation of the sclera.

sclero'sis. Hardening. **Arterio-sclerosis,** hardening of the arteries. This condition interferes with the freedom of the circulation and, consequently, with the nutrition of the tissues and produces the conditions peculiar to old age. It is largely due to deposit of mineral matter in the tissues of the walls of the blood-vessels. Such depositing is going on slowly in all who live beyond youth, but it is accelerated by the presence of certain poisons in the blood, as, for instance, those absorbed from the intestine when an abnormal degree of putrefaction takes place there, and poisons produced in disease.

sclerot'ic. (1) Hard. (2) Pertaining to the sclera.

scolex. The larva of the tapeworm.

scolio'sis (Gr. *scolios* = crooked). Lateral curvature of the spine.

scorbu'tic (Lat. *skorbutus* = scurvy). Pertaining to scurvy.

scrof'ula. A general debility of the system associated with swelling of lymphatic glands and often developing into tuberculosis.

scro'tum (Lat. *bag*). The bag containing the testicles and their accessories.

scur'vy. A disease characterized by spongy bleeding gums, a tendency to hemorrhage, from the mucous membranes and into the skin, anemia, and painful muscles. The chief cause, in adults, is a long-continued lack of fruit and fresh vegetables in the diet and, in infants, the use of condensed or sterilized milk, or proprietary foods that lack salts.

seat-worm. See *Oxyuris*.

seba'ceous (Lat. *sebum* = tallow). Pertaining to fat, or sebum.

S. glands, small glands in the deeper layers of the skin, the ducts of which open into the hair follicles. The glands secrete a fatty substance which keeps the hairs soft.

seborrhe'a. Excessive discharge from the sebaceous glands. It is often associated with, and seems due to, impairment of the general health.

se'bum. The secretion of the sebaceous glands.

sec'on'dary. A disease following or occurring in the course of another disease. Due to some known cause.

secre'tin. A hormone; *i. e.*, a chemical substance which stimulates the activity of secretory glands; *e. g.*, (1) when food is taken into the stomach secretogogues, whether preformed in the food or formed during digestion, act upon the

pyloric mucous membrane and form a substance—secretin—which is absorbed by the blood and carried by it back to the stomach and the gastric glands and stimulates their activity. (2) When acids enter the duodenum from the stomach they act upon some constituent of the intestinal mucous membrane in consequence of which a secretin is formed which is absorbed by the blood and carried to the pancreas where it stimulates the secretion of the pancreatic juice and to the liver, where it stimulates the secretion of bile.

secre'tion. A substance formed by secretory cells from material taken from the blood. In many instances, the secretion is of a very different nature from the material taken for its manufacture. **External s.**, one that reaches the surface of the skin or a membrane or the interior of a cavity by a duct leading from the gland in which it is formed. **Internal s.**, one that is absorbed from the gland by the blood, and carried by the latter to the tissues.

secretogogues *se-kre'-to-gogs*. Substances which stimulate the formation of secretin. They are contained in certain foods, especially meats and meat extracts; also, they are formed during digestion.

secun'dines (Lat. *secundinæ* = the afterbirth). The placenta and membranes expelled after the birth of a child.

sed'ative. Quieting. An agent that allays nervous excitement or irritability, irritation or excessive activity of a part.

sed'entary. Inactive.

sed'iment. A precipitate. Matter which settles to the bottom of a liquid.

Sed'litz powder. A powder put up in two packets, one of which (in a white paper) contains 25 grains of tartaric acid and the other (in a blue paper), 40 grains of bicarbonate of soda and 2 drams of Rochelle salt.

seg'ment. A small piece.

segmenta'tion. The act of dividing, or state of being divided, into segments.

sei'zure. A sudden attack or onset of disease.

self-lim'ited. Said of a disease which runs a definite course independent of treatment. Diseases due to germ invasion are usually of this type because they will continue for such length of time as the body needs to produce a sufficient quantity of anti-bodies to check them.

se'men (Lat. *seed*). The liquid containing the spermatozoa, secreted by the male reproductive organs.

sem'i (Lat. *semis* = half). Used as a prefix to denote half.

sen'ega. A drug obtained from the *Seneca snakeroot*. It acts as an expectorant and diuretic. Dosage: fluid-extract, 10-20 minims; syrup, $\frac{1}{2}$ -2 drams.

senes'cence. The state or process of growing old.

senil'ity. Feebleness due to old age.

sen'na. A cathartic drug obtained from the leaves of certain leguminous plants. Dosage: fluid-extract, 1-2 drams; compound infusion, 1-2 ounces.

sensa'tion. The impression made upon the brain by the

impulses carried thither by a sensory nerve.

sensibil'ity. Capable of sensation.

senso'rial. Belonging to the sensorium.

senso'rium (Lat. *sentire* = to feel). The sensory nerve-centers. **S. commune**, the part of the cerebral cortex that controls sensory impulses.

sen'sory nerve. A nerve that carries impulses from the periphery to the nerve-centers.

sen'sualism. Excessive indulgence of the appetites or passions.

sen'tient. Capable of feeling or perceiving.

sep'sis. Poisoning by substance produced by putrefactive bacteria. **Septicemia.** **Puerperal s.**, that occurring after childbirth.

sep'tic. Tending to putrefy. Due to putrefaction.

septic'e'mia *sep-tis-e'-me-ah* (Gr. *septos* = putrid and *haima* = blood). **Sepsis.** A septic intoxication caused by the absorption of the products of putrefaction or by the entrance of various pathogenic bacteria into the blood. Important symptoms are: Irregular temperature, ranging from 100° to 105° F.; weak, rapid pulse; frequent chills; headache; nausea; and usually, vomiting and diarrhea.

sep'tum, pl. **septa.** A dividing membrane, a wall.

se'quel, **sequela**, pl. **sequelæ.** Any abnormal condition following and, either directly or indirectly, caused by a disease.

se'quence. A particular order of succession. A series of things following in a certain order.

sequestra'tion. Isolation.

seques'trum. A piece of necrosed bone that has become detached.

se'ro (Lat. *serosus* = serous). A prefix used to denote relation to serum.

serosi'tis. Inflammation of a serous membrane.

se'rous. Of the nature of, pertaining to, or resembling, serum.

ser'rated. Notched on the edge like a saw.

se'rum. The clear, straw-colored liquid which, when blood clots, separates from the clot. It consists of water, protein substances, fats, extractives, salts, and matter such as internal secretions, enzymes, etc. In fact, serum is blood minus its fibrinogen, corpuscles, and a varying amount of its salts which are enmeshed with the clot. **Antitoxin s.'s,** serums obtained from the blood of animals that have been inoculated with bacteria or their toxins. Such sera, when introduced into the human body, produce passive immunization.

ses'moid (Lat. *sesamm*). Bones resembling the seeds of the sesame. They consist of small osseous masses developed in tendons at points where they are stretched over joints and exposed to pressure. The patella is an example.

sex'ual. Pertaining to sex.

sheath. A covering or investing membrane.

shin. The anterior edge of the tibia. The tibia.

shin'gles. See Herpes zoster.

shock. Depression of the nervous system and consequent prostration of all the vital

forces. The symptoms, in severe shock are the same as those of hemorrhage, except that there is no escape of blood from the vessels, but as, due to the relaxed condition of the blood-vessels, the blood collects in the large vessels in the interior of the body, the tissues are almost as much deprived of it as they would be by a hemorrhage, hence the symptoms.

show. (1) The red-colored mucus discharged from the vagina shortly before labor. (2) The menses.

si'logue (Gr. *sialon* = saliva and *agō* = to lead). Any agent that increases the flow of saliva.

sib'ilant (Lat. *sibilans* = hissing). Hissing, whistling.

side-chain theory. See Ehrlich's Theory.

sight. Vision. For mechanism of sight see Vision. **Far s., long s.,** see Hypermetropia. **Near s., short s.,** see Myopia. **Old s.,** see Presbyopia.

sig'moid. Shaped like the letter S. **S. flexure,** the S-like curve of the colon situated between the descending colon and the rectum.

sign. Any objective symptom that is of value in diagnosis or as an indication of a person's condition.

sil'ica. A dioxid of silicon, SiO_2 . Next to oxygen, silicon is the most abundant element in nature. It does not occur free, but in various compounds, especially silica. White sand is almost pure silica, and many rocks, crystals, and precious stones are composed largely of this compound. Also, it occurs in small amounts in the animal body and in plants.

silkworm gut. A thread or strand of gut obtained from the silkworm. When worms are ready to begin spinning they are killed and pulled apart and two long strands of the gut are obtained from each worm.

silver (Lat. *argentum*. Symbol Ag). A metal element. Silver occurs free in nature in small quantities, but it is usually found in combination with other elements, especially sulphur, with which it unites very readily. The tarnishing of silver is due to the action of sulphur. Several salts of silver are used for medicinal purposes the majority of them acting as astringents and antiseptics. Their antiseptic action is particularly valuable in the treatment of conditions due to the gonococcus.

Sims. A noted American gynecologist, lived 1813-1883. S.'s position, that obtained by placing the patient upon the left side; the left side of the face, left shoulder, and breast resting upon a very flat pillow of the table. The left arm rests on the table behind the patient; the right arm, bent at the elbow, lies across the chest. The buttocks are at the edge of the table. The knees are flexed and drawn up toward the abdomen. the right one more so than the left.

sin'apism (Lat. *sinapis* = mustard). A mustard plaster or paste.

sinew. A tendon.

singul'tus (Lat. *hiccup*). See Hiccup.

si'nus (Lat. *cavity*). (1) A cavity. A hollow space. (2) A fistula, such as sometimes remains in a deep wound after

the rest of the cavity has been filled in with new tissue. (3) Channels in the interior of the skull formed by a separation of the layers of the dura mater. They serve as a passageway for some of the venous blood to the internal jugular veins.

ska'tol. A substance produced by the putrefaction of proteins. It is one of the constituents of animal feces.

skel'etal. Pertaining to the skeleton.

skel'eton. The bony framework of the animal body.

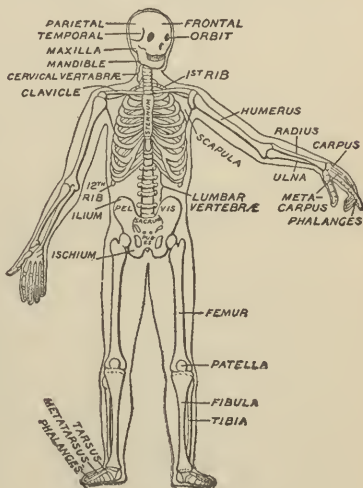


FIG. 4.—The Human Skeleton

ski'agraph (Gr. *skia* = a shadow and *grapho* = to write). The production of photographs by means of the Röntgen rays.

skin. The outer covering of the body. Scarf s., the epidermis or cuticle. True s., the derma, cutis, cutis vera, or corium.

sleeping sickness. A very fatal disease of India and Central Africa due to infection by an animal parasite, the *Trypanosoma gambiense*, which is introduced into the blood by the bite of a fly.

slide. A small strip of glass used to hold specimens for microscopic examination.

slough *sluf*. A piece of dead tissue that has sloughed or separated from living tissue.

smallpox, variola vera. A highly communicable disease. The period of incubation is from 8-20, usually 12, days. The disease is characterized by a sudden rise of temperature which is usually preceded by a chill or, with children, convulsions, intense headache, pain in the back and limbs, vomiting and, on the third or fourth day, a typical eruption which goes through the successive stages of macule, papule, vesicle, and pustule. This lesion is umbilicated and surrounded by an inflammatory areola. By the tenth or eleventh day the fever falls, the pustules begin to dry, forming crusts which drop off, and convalescence begins.

smeg'ma. A thick sebaceous substance found under the prepuce and around the labia minora. **S. embryonum**, the vernix caseosa.

soap. A salt formed by the union of free fatty acids with an alkali. (See Saponification.)

Antiseptic s., that containing disinfectant substances.

Castile s., that made of soda and olive oil. **Hard s.,** that for which soda is used as the alkali. **Green s.,** one prepared from potash, olive oil, and alcohol, various disinfectants are sometimes added.

Soft s., one for which potash is used as the alkali.

soc'ket. A hollow or depression into which a part, as a bone or tooth, fits.

so'dium. A soft silver-white metal that is very active chemically, combining with most of the non-metallic elements with great energy, for which reason it is never found free in nature. **Baking s.,** sodium bicarbonate. **S. bromid,** a salt of soda and bromine, used as a nerve sedative. Dose, 5-30 grains. **S. cacodylate,** an arsenal salt of s. used as an alterative. Dose, $\frac{1}{2}$ -1 $\frac{1}{2}$ grains daily. **S. carbonate,** washing soda. **S. chlorid,** common salt. **S. hydroxid,** caustic soda. **S. nitrate,** chili saltpeter, it is used as a ground fertilizer and in certain manufacturing processes. **S. nitrite,** a salt of nitrous acid and soda, its action is similar to nitroglycerin. Dose, $\frac{1}{2}$ -2 grains. **S. salicylate,** see Salicylates. **S. sulphate,** Glauber's salt, a strong cathartic, dose, 1-8 drams.

so'lar. Pertaining to the sun.

sola'rium. A glass room.

sole'us (Lat. *pertaining to the sole*). A muscle situated in the back part of the leg.

sol'itary. Alone. **S. glands,** small lymph glands in the mucosa of the small intestine, some of which are known as *Peyer's patches*.

sol'uble. Capable of being dissolved.

sol'ute. The substance dissolved or absorbed in a solution. The solute may be either a gas, a liquid, or a solid.

solu'tion (Lat. *solutio* = a loosening). (1) Dissolution. (2)

Dissolving a substance in a liquid. (3) A liquid containing dissolved substance. **Saturated s.**, see Saturated. **Supersaturated s.**, that in which the solvent, with the aid of heat, has been made to take up more of the solute than it can at ordinary temperature.

sol'vent. (1) A liquid which is capable of dissolving or absorbing a gas, other liquid or solid. (2) Having the power of dissolving or disintegrating.

som'nal. A compound of urethan, chloral and alcohol that has hypnotic and diuretic properties. Dose, 15-30 minims.

somnam'bulism (Lat. *somnus* = sleep and *ambulare* = to walk). Walking while asleep.

somnam'bulist. A person who walks while asleep.

somnifa'cient. A medicine that causes sleep.

somnil'oquism (Lat. *somnus* = sleep and *loquere* = to speak). The habit of talking in one's sleep.

som'nolence (Lat. *somnolentia* = sleepiness). Drowsiness.

sono'rous (Lat. *sonorus*). Sounding.

soporif'ic (Lat. *soporificus*). Causing profound sleep.

sor'des (Lat. *filth*). The mixture of food mucus, epithelial cells, and microorganisms that collect in the mouth during fever, unless it is properly cared for.

sor'ghum. A species of sugar cane.

souffle *soo'-fl* (Lat. *soufflare* = to blow). A low, blowing sound sometimes heard on auscultation. **Cardiac s.**, a heart murmur having such a characteristic. **Fetal s.**, a sound

heard in the abdomen during pregnancy, thought to be due to compression of the umbilical cord. **S. uterine**, a sound heard late in pregnancy caused by the blood in the dilated arteries of the uterus.

sound. (1) The form of vibratory motion capable of stimulating the auditory nerves. It always originates in a vibrating body and is transmitted from one place to another by waves in some medium. Air is the ordinary medium, but gases, solids, and liquids serve the purpose. Water is a particularly good medium; when the ear is under water a moving steamer can be heard a mile away. (2) An instrument that is introduced into passages of the body, as the urethra, either to dilate the canal or to detect foreign substances.

Spanish fly. See Cantharides.

spar'tein. A drug obtained from broom. Its action resembles that of digitalis. Dose, s. sulphate, $\frac{1}{10}$ -1 grain.

spasm. An involuntary, convulsive contraction of the muscles. **Habit s.**, a constantly recurring contraction of certain voluntary muscles.

spasmod'ic. Sudden muscular contractions.

spas'tic. (1) Stiff. (2) Pertaining to spasms.

spa'tial. Relating to space.

spat'ula. A pliable steel blade used for mixing and for spreading ointments.

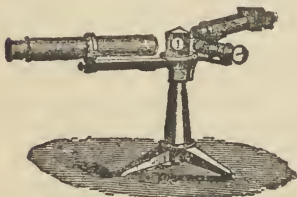
spat'ulate. Shaped like a spatula.

spay. Excision of the ovaries or testicles.

spe'cies. A group of organisms resembling each other.

specif'ic. Pertaining to a species. Suited for a particular purpose. Produced by a special cause. **S. activity**, the special function for which an organ is designed. **S. cause**, the only germ or other agent that causes a given disease. **S. diseases**, those always due to the same agent; the term is frequently, but erroneously, restricted to syphilis. **S. gravity**, see Gravity.

spec'troscope (Lat. *spectrum* = image and Gr. *skopeo* = to see). An instrument used to examine the spectra of different



Simple form of Spectroscope

substances. It consists of one or more prisms for producing the spectrum and a telescope for examining it. The light is admitted to the prism through a narrow slit. This instrument has been the means of many valuable discoveries, for, by analysis of the rays emitted by luminous bodies, or those which can be made luminous, knowledge can be gained of their chemical composition and physical condition.

spec'trum, pl. **spec'tra**. The colors produced when the rays from any source of light are decomposed by passing through a prism; *e. g.*, the rainbow produced by the decomposition of the sunlight by drops of rain.

spec'ulum, pl. **specula** (Lat. *mirror*). An instrument introduced into canals to hold their walls apart and thus facilitate examination of the cavities to which they lead.

sperm. The semen. **S. cell**, a spermatozoön. **S. nucleus**, that of a spermatozoön.

spermat'ic. Pertaining to the semen.

spermatit'is. Inflammation of a vas deferens.

spermatozoön', pl. **spermatozo'a**. The motile fecundating element of the semen, which fertilizes the ovum.

spermolyt'ic. Any agent that decomposes spermatozoa.

sphe'noid (Gr. *sphen* = a wedge and *eidos* = form). A wedge-shaped bone at the base of the skull, behind the ethmoid. It articulates with all the skull bones and five of the face bones.

sphere. A ball.

spher'ule. A small sphere.

sphinc'ter (Gr. *sphinggō* = to bind tightly). A circular muscle which contracts a natural orifice as that of the pylorus, the bladder, or the anus.

sphyg'mic (Gr. *sphygmos* = the pulse). Pertaining to the pulse.

sphyg'mograph (Gr. *sphygmos* = the pulse and *graphō* = to

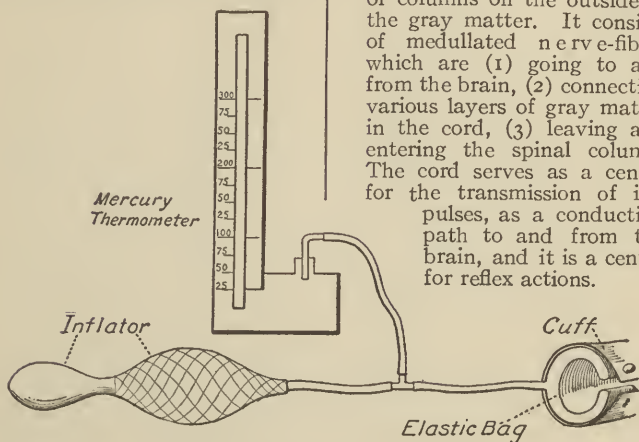


Marey's Sphygmograph

write). An instrument that, when attached to the wrist, produces tracings on a smoked

paper which show the form and force of the pulse movements.

sphygmomanom'eter. An instrument for determining the



Sphygmomanometer

nerve cell-bodies, dendrites, collaterals, and beginning of the axis cylinder processes. The white matter is arranged in what are known as tracts or columns on the outside of the gray matter. It consists of medullated nerve-fibers which are (1) going to and from the brain, (2) connecting various layers of gray matter in the cord, (3) leaving and entering the spinal column. The cord serves as a center for the transmission of impulses, as a conducting path to and from the brain, and it is a center for reflex actions.

degree of blood pressure in the arteries.

sphyg'mophone (Gr. *sphygmos* = the pulse and *phōnē* = sound). An apparatus that renders pulsations audible.

spi'na (Lat. *a thorn, a spine*). Pertaining to the spine. *S. bifida*, a congenital fissure in the vertebral column through which there is a hernia of the cord membranes.

spi'nal. Pertaining to the spinal column or to any spinous process. *S. canal*, the canal of the spinal column. *S. column*, the backbone. *S. cord*, that portion of the central nervous system contained within the spinal canal. It is directly continuous with the medulla oblongata. The center of the cord consists of gray matter, which is composed of the

spin'dle. The cone-shaped figure that forms in a cell-nucleus during karyokinesis.

spi'nous. Pertaining to the spine or any spine-like process.

spi'ral. Winding like a corkscrew.

spiril'um, pl. spirilla. A spiral-shaped rigid bacterium.

spir'it. (1) A solution of a volatile substance in alcohol. (2) A liquid obtained by distillation.

spirochæta *spi-ro-ke'-tah.* A spiral-shaped microorganism that differs from spirilla in being flexible.

spit'tle. Saliva.

splanchnic *splangk'-nik* (Gr. *splangchnon* = a bowel). Pertaining to the viscera. *S. nerves*, three main trunks of nerves, known as the *great*,

small, and least splanchnic nerves, that are derived from the sympathetic ganglia and distributed to the viscera.

spleen. An oblong-shaped body from about 6-8 inches in length, situated below the diaphragm, behind the cardiac end of the stomach. Its functions are imperfectly understood, some of the purposes which have been attributed to it are: That it is one of the locations for: (1) the formation of leucocytes; (2) the formation of red corpuscles during fetal life and for a short time after birth; (3) the preparation of new hemoglobin or the preservation of the iron set free by the disintegration of erythrocytes; also, it is thought from certain evidence, that it may be concerned in some as yet unknown way in digestion and metabolism, and that it may serve to modify abnormal material in the blood.

spleni'tis. Inflammation of the spleen.

splint. An appliance used to render a part immovable.

spondyli'tis (Gr. *spondylos* = a vertebra and *itis* = inflammation). Inflammation of a vertebra. Pott's disease.

spongy. Soft. Like a sponge.

sporad'ic (Gr. *sporados* = scattered). Occurring singly. **S. disease**, an infectious disease which occurs singly and independently of any discoverable source of infection.

sporan'gium (pl. **sporangia**). The case in which spores are contained in molds and certain flowerless plants.

spore (Gr. *sporos* = a seed). (1) a small, oval, highly refractive body which appears in the

protoplasm of bacteria when conditions cease to be favorable and which is capable of developing into a bacterium as soon as conditions improve. (2) The reproductive element of some forms of fungi, as the molds.

sporula'tion. The formation of spores.

sprain. A twisting or wrenching of a joint with tearing of the ligaments and surrounding soft parts.

sprew. See Thrush.

spur. A small projecting piece of bone.

spu'tum. Expectoration. Saliva mixed with mucus from the nose, or other air passages. **Fetid s.**, that with a foul odor. **Mucoid s.**, that containing a large amount of mucus. **Mucopurulent s.**, that containing mucus and pus. **Nummular s.**, that consisting of coin-shaped masses which sink in water. **Purulent s.**, that consisting largely of pus. **Prune juice s.**, that containing so much partially decomposed blood that it looks like prune-juice. **Rusty s.**, that with a rusty color due to the presence of blood.

squa'mous. Covered with, or consisting of, scales or scale-like flakes of bone, etc.

squill. A drug derived from the bulb of *Urginea maritima* or *Sea onion*. Its principal uses are as an expectorant and diuretic. Dosage: fluid-extract, 1-5 minims; tincture, 5-20 minims; syrup, 15-60 minims; compound syrup, 15-30 minims.

squint. See Strabismus.

ss. An abbreviation for the latin *semis* = one half,

stab culture. A bacterial culture in which the medium is inoculated by thrusting into its substance a platinum wire or probe smeared with the virus.

sta'bile. Abiding. Not transitory nor easily decomposed.

sta'dium, pl. stadia (Lat. *course*). The period in a disease during which the temperature remains more or less constantly at its highest point.

stage. (1) A distinct period in the course of a disease; *e. g.*, the stages of incubation, invasion, fastigium or stadium, eruptive, sweating, defervescence or decline, convalescence. (2) The stages of labor, viz.: s. 1, that which begins with the first true labor-pain and ends with the complete dilation of the os uteri; s. 2, that beginning with the end of the first stage and ending with the birth of the child; s. 3, that beginning with the end of the second stage and ending with the delivery of the placenta and membranes. (3) The platform projecting from the pillar of a microscope.

stagna'tion. Cessation of motion or circulation.

stain. (1) A discoloration. (2) A dye or other reagent used for coloring specimens and cultures for microscopical examination.

stam'ina (Lat. *that which stands up*). Strength. Endurance.

stanch. To check, as the flow of blood from a wound.

stan'dardize. (1) To decide upon a rule or model, or upon the nature and proportion of the ingredients of which compounds are to be composed. (2) To bring up to a standard.

stapes *sta'-pez* (Lat. *stirrup*). The innermost of the three small bones of the middle ear.

staphylococcus *staf-il-o-kok'-us*, pl. **staphylococci** (Gr. *staphyle* = a bunch of grapes and *kokkos* = a berry). A round bacterium or coccus that grows in media in an irregular grape-like cluster. The various species of the staphylococci are the cause of a large number of the purulent processes that occur in man and the lower animals.

starch (Lat. *amylum*). A carbohydrate obtained from various plants. It is made from CO₂ and H₂O, the protoplasm of the plant being able, with the aid of chlorophyll, under the action of light, to put these elements together to form starch, or it is thought, first sugar and then starch. This action takes place chiefly in the leaves of plants and the starch thus made is carried to the roots, fruit, flowers, or seeds and there stored.

sta'sis (Gr. *standing*). Stoppage or very slow movement of the blood or other fluid. **Venous s.**, that due to congestion in the veins.

stat'ic. Pertaining to bodies at rest.

statis'tics. A collection of authenticated facts stated in a tabular, or otherwise classified form.

stat'ure. Height.

sta'tus. (1) A state or condition. (2) Rank or standing.

steam. Water in its gaseous form. It is a colorless, invisible, gas, quite distinct from the visible vapor arising from boiling water; the latter being minute drops of water

produced by the condensation of the steam as it passes into the colder air. Under ordinary atmospheric pressure, when the water is boiled in an open vessel, the temperature of the steam is 212° F., 100° C., and it will remain this temperature no matter how hard the water is made to boil. **Dry s.**, that which is superheated, by being kept under pressure, and then passed through hot pipes. **Moist s.**, that arising when the temperature of the water is reduced slightly below 212° F. **S. under pressure**, that produced when the water is boiled in a tightly closed vessel. In such case both the pressure and temperature of the steam rapidly increase, because heat causes the expansion, and increases the activity, of matter, and motion results in increased heat. The pressure exerted by, and explosive force of, steam seeking vent is very great. The amount of pressure exerted is expressed in pounds, meaning so many pounds pressure to each square inch of space.

steap'sin. Same as lipase, *i. e.*, the ferment of the pancreatic juice which aids in the digestion of fats.

stear'in (Gr. *stear* = tallow). One of the constituents of fat, especially the harder fats, as that of mutton and beef.

stearop'ten. The solid portion of the typical volatile oils.

steel. A very hard form of iron made by burning out from cast iron part of the carbon, silicon, phosphorus, and sulphur which it contains.

stegomyia. *steg-ō-mi-e'-ah.* A species of mosquito common in some tropical countries. **S.**

fasciata, the mosquito which transmits yellow fever from one individual to another in the same manner as the *anopheles* does malaria.

sten'o (Gr. *stenos* = narrow). A prefix denoting narrowness or contraction.

steno'sis. Narrowing or constriction of a duct or orifice.

steno'tic. Constricted.

step'page gait. A peculiar *high stepping* gait seen in individuals with paralysis of the muscles which lift the toes.

stere, stereo (Gr. *stereos* = solid). A prefix signifying solid.

ster'ile. (1) Affected with sterility; barren. (2) Aseptic, free from microorganisms.

steril'ity. Inability to create offspring.

steriliza'tion. The destruction of microorganisms by heat. **Fractional or intermittent s.**, that in which the material being sterilized is subjected to repeated sterilizations—usually 3—in streaming steam, some hours being allowed to elapse between each sterilization in order to allow spores, which are not destroyed by a temperature of 212° F., to develop into bacterial state.

ster'nal. Pertaining to the sternum.

sternocleidomas'toid. The large muscle extending down the side of the neck from behind the ear to the sternum.

ster'num. The breast bone.

ster'torous. Breathing with a snoring sound. Loud, laborious breathing.

ster'ule. A capsule containing a sterile solution.

steth'oscope. An appliance used in auscultation.

stig'ma, pl. **stigmata** (Gr. *a mark*). A mark or blemish on the skin.

stim'ulant. Any agent that excites functional activity.

stimula'tion. The act of exciting functional activity.

stim'ulus, pl. **stimuli** (Lat. *a good*). That which stimulates.

sto'ma (Gr. *a mouth*). A small superficial opening or orifice. Certain insects and plants have stomata for the maintenance of respiration.

stom'ach. The musculomembranous sac between the esophagus and the duodenum. It is situated directly below the diaphragm in the center and left side of the abdomen. It serves to hold the food while it undergoes the process of digestion known as *chymification* and to secrete the juice necessary for the purpose.

stomati'tis (Gr. *stoma* = a mouth and *itis* = inflammation). Inflammation of the mouth.

stone. See Calculus.

stool. The feces discharged from the intestine. A defecation.

strabis'mus. Squint or cross-eyes. The condition arises from lack of balance between opposing muscles of the eye. This may be due to weakness or paralysis of one or more muscles or to over-tension in some muscles as compared with their antagonists.

stramo'nium. A drug obtained from the *Datura stramonium*. Its action is about the same as belladonna. Dosage: fluid-extract, 1-5 minims; tincture, 5-15 minims. The dried leaves of the plant are much used in the treatment of asthma. The leaves are set on fire and the patient inhales

the vapors through a cone which is fitted over the utensil containing the leaves.

stran'gle. To suffocate. To choke.

strang'ulated. Having the circulation checked by compression; as happens in hernia when the muscles become constricted around the loop of intestine that has slipped between them.

strang'ury (Gr. *strangx* = a drop and *ouron* = urine). Slow and painful voiding of urine.

strat'ified. Arranged in layers.

stra'tum, pl. **strata**. A layer.

straw'berry tongue. The characteristic condition of the tongue in scarlet fever due to the papillæ becoming bright red and swollen.

streptococ'cus, pl. **streptococci**. A coccus that multiplies by division in one plane of space only and thus gives rise to an appearance in the medium of rows of chains. *Streptococci pyogenes*, those which cause suppurative inflammations.

stri'a, pl. **striæ**. A streak, line, or crease. **S. gravidum**, white lines upon the abdomen due to stretching of the tissues during pregnancy. The same condition occurs also as the result of abdominal tumors.

stric'ture. Constriction of a duct or channel.

stri'dent. Stridulous. Creaking. Grating.

stroke. A sudden attack of disease; the term is used more especially for apoplexy and paralysis.

stro'ma (Gr. *stromatos* = a bed). The connective tissue which forms the groundwork or matrix of an organ.

stron'tium. A metal element the bromid, iodid, and salicylate salts of which are used as medicine. Their action is about the same as the corresponding sodium salts.

strophan'thus. A drug obtained from the seeds of the *Strophanthus hispidus*. Its action is very similar to digitalis. Dosage: tincture, 2-10 minims; strophanthin, $\frac{1}{200}$ - $\frac{1}{100}$ grain.

struc'tural. Pertaining to, or involving, the structure.

struc'ture. The arrangement or composition of the tissues of a substance, organ, or body.

stru'mous. Scrofulous.

strychnin strik'-nen. The active principle of nux vomica. It stimulates the central nervous system, more especially the spinal cord, and, by this action, improves muscle tone and acts as a heart tonic, improves digestion, and increases the peristaltic action of the intestine. Dosage: strychnin sulphate $\frac{1}{20}$ - $\frac{1}{10}$ grain; iron and strychnin citrate, 1-3 drams; syrup of the phosphates of iron, quinin, and strychnin, 1-2 drams.

stump. The part of an extremity left after amputation.

stun. To daze or render unconscious by a blow or shock.

stupe, fomenta'tion. Flannel or similar material wrung out of hot water and applied to the body in order to produce counterirritation. Usually the application is changed every few minutes and kept covered with some impervious material while it is on the body.

sty, stye, hordeo'lum. Inflammation of a sebaceous gland of the eyelid.

sty'loid (Lat. *stylus* = a pen and Gr. *eidos* = form). Pen-shaped. The name of various pointed processes of bone as those at the lower end of the ulna and radius and that at the upper end of the fibula.

styp'tic. A drug that has sufficient astringent property to check hemorrhage by contracting the blood-vessels.

sub (Lat. *under*). A prefix signifying under, almost, less.

subacute'. Not very severe. Moderately acute.

subcon'scious. Only partially conscious.

subcuta'neous. Beneath the skin.

sub'limite. A substance that has undergone sublimation.

sublima'tion. Purification of a solid substance by bringing it to a state of vapor, without liquefying it, and then condensing the vapor.

submuco'sa. The tissue just below the mucous membrane.

subnor'mal. Below normal.

sub'sidence. (1) Sinking to the bottom. (2) Becoming quiet. (3) The gradual disappearance of symptoms.

subsul'tus. Muscular tremor or twitching due to weakness.

suc'cus (Lat. *juice*). **S. entericus**, the intestinal digestive juice. Its value as a digestant is due to the presence of the enzyme erepsin, which aids in the digestion of proteins, and to various inverting ferments which convert the more complex sugars into glucose. Also, it contains an enzyme enterokinase which activates the trypsinogen of the pancreatic juice.

suc'tion. Drawing or sucking in by creating a vacuum; e. g.,

liquid can be drawn up through a tube by sucking, because this action exhausts the air in the tube and the pressure of the atmosphere upon the liquid forces it to fill the space where, as there is a vacuum, pressure is lessened.

sudam'ina. Small vesicles on the surface of the body due to retention of sweat in the sweat glands or its collection in the superficial layers of the cuticle.

su'dan. A stain used as a test for the presence of fat.

su'dor. Latin for perspiration or sweat.

sudore'sis. Excessive sweating.

sudorif'erous. Pertaining to sweat.

sudorif'ic. A diaphoretic; *i. e.*, an agent that excites the excretion of perspiration.

suffoca'tion. Stoppage of respiration.

suffu'sion (Lat. *suf*=under and *fundo*=to pour). The extravasation or flowing of blood or other fluid to a part.

sugar. A class of soluble, sweet carbohydrates formed in, and found dissolved in, the juices of a large number of plants. (See Starch.) Sugars are classified as (1) disaccharids or sucroses; *e. g.*, cane sugar, beet sugar, maple sugar, maltose and lactose, (2) monosaccharids or glucoses; *e. g.*, dextrose or glucose, levulose, invert sugar. Sugar—glucose—is made also in the animal body from starch.

sugges'tion. The presentation of an idea to the mind.

sul'cus, pl. sulci (Lat.). A groove or furrow.

sul'phate. Any salt of sulphuric acid.

sul'phite. Any salt of sulphurous acid.

sul'phonal, sulfonal. An alcohol derivative, used as an hypnotic. Dose, 20–30 grains. It is usually given in hot milk,—hot fluids aiding in its absorption—and early in the evening—as its action is slow.

sul'phur. A non-metallic element that is solid at ordinary temperature, but can be liquefied at about 114.8° F., and vaporized at 448° F. It is widely distributed in nature in the uncombined form and it occurs abundantly in the form of sulphides and sulphates. It is found in a great variety of minerals and is a constituent of many animal and vegetable substances. It has various uses in many industries, and it is used as an antiseptic and disinfectant; also, it is used in baths and as an ingredient of ointments for the relief of certain skin diseases. The washed sulphur or *sulphur lotion* is given internally to produce catharsis. Dose, 1–3 drams.

sul'phurated, sulphureted. Containing sulphur.

sunburn. Dermatitis, produced by the action of the chemical rays of the sunlight on the skin.

su'per (Lat. *super*=above). A prefix denoting excess, a greater abundance, or above.

supercil'ium. An eyebrow.

superf'icial. On or near the surface.

superinduce'. To induce as an addition to something already existing.

supe'rior. Higher in position.

supernu'merary. In excess of the usual or stated number.

supersat'urated. See Solution.
superven'tion. To occur as something additional.

su'pinate. To turn the hand so that it is supine; *i. e.*, with the palm upward. The opposite of pronation.

su'pinator. A muscle that causes supination.

suppos'itories. Slender cone-shaped preparations of cocoa-butter—or other substance that will melt at body temperature—in which a drug is incorporated. They are intended for insertion into the rectum, urethra, or vagina.

suppres'sion. The sudden stoppage of a secretion as, for instance, when the kidneys fail to secrete urine.

suppura'tion. The condition produced in inflamed tissue when the phagocytes fail to destroy the bacteria. The bacteria and the ferment set free from the disintegrated leucocytes soften the exudate produced during the inflammatory process and a thick, yellow liquid, consisting of this exudate, disintegrated leucocytes and both dead and living bacteria, is produced. This liquid is called pus.

sup'purative. Pus-producing.

su'pra (Lat. *above*). A prefix implying above or over.

suprapu'bic. Above the pubes. **S. cystotomy**, incision into the bladder in which the external opening is made above the pubes.

suprare'nal. Situated above the kidneys. **S. capsules**, the adrenal bodies, two small glands situated one upon each kidney. They produce a secretion—adrenalin—which is necessary for the maintenance of the

tone of the heart and blood-vessels.

suscep'tible. (1) Easily influenced. (2) Readily infected.

suspen'sion. (1) The act of hanging up. (2) The temporary cessation of work, pain, etc. (3) The maintaining of particles of an insoluble solid suspended in a liquid. This is usually accomplished by the use of some viscid substance.

sustentac'ular. Supporting.

su'ture (Lat. *sutura*). (1) A stitch made to draw the sides of a wound together. (2) The material used in making the stitch. (3) Articulation of the cranial bones which form serrated lines, like the stitches of a seam.

sweat. The perspiration.

swoon. See Syncope.

syco'sis. A non-contagious inflammatory disease of the hair follicles, resulting from general debility, local irritation, and the entrance of pyogenic cocci. **Parasitic or tinea s.**, barber's itch or ringworm on the bearded region of the face, due to infection by the trichophyton, a vegetable parasite. The disease is communicable.

symbio'sis. The living together of two different organisms.

sym'bol. A sign. A letter or character that has a special signification. In chemistry, the first letter of the Latin name of an element is used as its symbol or sign, and, when two or more elements have names beginning with the same letter, a second letter is added, the single letter being reserved for the more common element. For chemical symbols see page .

sym'metry. Harmony in the proportion of different parts of a body. Adaption of parts to each other.

sympathet'ic. (1) In harmony or agreement with the feeling of another. (2) Produced by or arising from, sympathy. **S. system,** the part of the nervous system consisting principally of gray nerve matter called ganglia, situated for the most part in the abdominal and thoracic cavities, and of non-medullated nerve-fibers, arising from the ganglia, which are distributed to, and, to a great extent, control the action of, the viscera.

sympphysiot'omy. The operation of severing the ligaments and the fibro-cartilages of the pubic symphysis.

sympphysis *sim'-fis-is* (Gr. *sym* = together and *physis* = a growing). The articulation of bones in which there is little motion. **S. pubis,** the junction of the two pubic bones.

sym'ptom. Any evidence or sign of disease or of change in a patient's condition in the course of a disease. **Objective s.,** one that is apparent to the observer. **Subjective s.,** one complained of by the patient.

symptomat'ic. Pertaining to, or of the nature of, a symptom. **S. treatment,** treatment that aims at the influence of the individual symptoms, rather than at the disease producing them.

symptomatology. The systematic study or discussion of symptoms.

syn. A prefix from the Greek signifying with, together.

syn'apse, synap'sis. The point where the dendrites of different cells come almost in contact with each other.

synarthro'sis (Gr. *syn* = together and *arthrōō* = to articulate). An immovable joint.

syncope *sin'-ko-pe.* Temporary unconsciousness due to anemia of the brain.

syn'ergy (Gr. *synergos* = working together). Coöperation. Acting in harmony.

synon'ymous. Expressing the same idea in different words. Having the same meaning.

syno'via (Gr. *syn* = with and *ovum* = an egg). The viscid, transparent solution, resembling white of egg which is secreted by the synovial membranes. It serves to lubricate the membranes and thus prevent friction.

syno'vial. Pertaining to synovia. **S. membranes,** the membranes which secrete synovia. They are found (1) covering the articulating surfaces of many of the movable joints; (2) forming bursæ where muscles move upon each other, over bone, etc.; and (3) forming sheaths for tendons that move over bone.

synovi'tis. Inflammation of a synovial membrane.

syn'thesis (Gr. *syn* = together and *thesis* = a putting). The act of uniting two or more things. The putting together of elements to form compounds; *e. g.,* making water by causing oxygen and hydrogen to combine.

synthet'ic. Resembling, or formed by, synthesis.

syph'ilid. Any skin lesion due to syphilis.

syph'ilis; lues. A chronic, infectious, venereal disease that produces various lesions. It is caused by the *Spirochæte pallidum* which is spread by sexual intercourse, kissing,

drinking-cups, dirty towels, clothing, and the like and can be congenital. The germ is contained in the mucous patches characteristic of the second stage of the disease; the saliva, and the whole of the patient's skin while the rash is present may be infectious. There are three distinct stages of the disease: (1) A hard, indolent sore appears at the point where the germ enters the body, this soon ulcerates, heals slowly, and leaves a permanent scar. (2) The second stage begins about 12 weeks after the appearance of the sore or chancre; it is characterized by pains in the bones which are worse at night, various forms of skin rashes and ulcers, white spots—called *mucous patches*—in the mouth, chronic sore throat, falling of the hair, anemia. (3) The third stage may not begin until years later and may, by proper treatment, sometimes be averted. It is characterized by the formation of gummata in various parts of the body, and the poison of the disease may cause structural and functional disturbance of any organ or organs of the body. Locomotor ataxia and paresis are likely to follow. The children of syphilitic parents are likely to be born dead or to die within a few months. If they survive they are likely to be anemic, rachitic, to have chronic catarrh and various other lesions, especially of the bones. Their second teeth are likely to have a dull opaque color, a roughly rounded, stunted appearance, and the enamel, instead of covering them, is broken and irregular, forming a semilunar notch on the tip.

syph'iloid. Resembling syphilis.

syphilo'ma. A tumor caused by syphilis; a gummata.

syringomye'lia (Gr. *syrinx*=a pipe and *myelon*=marrow). The condition caused by destruction of the gray matter around the syringocele—i. e., the canal that extends through the center of the spinal cord. It is characterized by loss of temperature sense and pressure sense, and by muscular atrophy and stiffness.

sy'rups. Preparations of drugs in concentrated sugar solutions.

systal'tic. Pertaining to the systole.

sys'tem. (1) The body. (2) Any set of organs or parts performing a special function, as the respiratory system, vascular system, etc.

syste'mic. Affecting, or pertaining to, the whole body or to any special system of the body. **S. disease,** one that affects the body or any special system of the body.

systole *sis'-to-le.* The contraction of the heart.

T

Tabes *ta'-bēz* (Lat. *tabeo*=to waste away). Any progressive atrophy or wasting of the body. **T. dorsalis,** locomotor ataxia.

tache *tahsh* (Fr.). A spot or discoloration.

tach'y (Gr. *tachys*=swift). A prefix denoting accelerated speed.

tachycar'dia (Gr. *tachys*=swift and *kardia*=heart). Rapid heart action.

tact'ile (Lat. *tactilis* from *tango*=to touch). Pertaining to the sense of pressure or touch.

T. corpuscles, the sensory end-organs of the tactile nerves situated in the skin and some mucous membranes, especially that of the lips and tongue.

tænia *te'-ne-ah*. See Tapeworm.

talc, talcum. Powdered magnesium silicate.

talipes *tal'-ip-ēz*. Club-foot; *i. e.*, deformity of the foot caused by abnormal contraction of certain muscles or tendons.

ta'lus (Lat.). The ankle or astragalus.

tam'arind. A tropical tree, also its fruit, the juice of which is used as a cooling drink and a laxative.

tam'pon. A plug made of cotton or other absorbent material used for insertion into cavities to arrest hemorrhage, absorb secretions, or as a vehicle for applying medication to the walls of the cavity.

tamponade', tamponment. The use of tampons.

tan'nate. Any salt of tannic acid.

tank. A reservoir. **Septic t.**, a reservoir for the temporary storage of sewage, which is allowed to remain exposed to the air for some time in order that the solid matter may undergo decomposition by the action of bacteria, after which the sewage is disposed of in different ways.

tan'nic acid, tannin. An acid derived from galls, *i. e.*, growths on plants caused by parasitic organisms the secretions of which stimulate the plant cells to excessive development. Tannic acid is a non-crystalline powder that has very astringent properties. It is used to check excessive secretions, to harden the skin, and as a chemical

antidote for poisoning with any of the alkaloids. See Table of Poisons, page

tape'worms. Large flat worms. There are three varieties that can develop in the human intestine if their eggs are swallowed with food or drink; viz.: (1) The *tænea saginate*, or beef tapeworm, which sometimes inhabits the intestines of oxen and its embryos are carried by the blood to the animals' muscles, so that if beef thus infected is eaten raw or imperfectly cooked, the embryos are taken into the body and may develop, the resulting worm growing as long as 15 or 20 feet. (2) The *tænea soleum*, or pork tapeworm, which is taken into the body in infected pork. (3) The *bothri-cephalus latus*, or fish tapeworm, the embryos of which are in the flesh of infected fish.

tar. A thick, dark, viscid substance obtained, with many other products, in the dry distillation of organic bodies and of bituminous minerals. **Coal t.**, that obtained from bituminous coal or petroleum. **Gas t.**, that obtained from coal as a by-product in the manufacture of gas. **Wood t.**, that obtained from wood. The tars are very complex substances and a number of medicines, dyes, and other substances are obtained from them by distillation and other processes.

tar'sal. Pertaining to the tarsus.

tar'sus (Gr. *tarsos*=a framework, the instep). (1) The ankle. (2) The cartilage of the eyelid. **T. bones**, the seven small bones composing the ankle joint.

tar'tar. (1) The acid potassium tartrate which is deposited on the inside of wine casks.

(2) A deposit that forms on the teeth when they are not properly cared for. **Cream of t.**, potassium bitartrate, a saline cathartic and diuretic. Dose, 20-60 grains. **T. emetic**, the tartrate of antimony and potassium; it is used as an expectorant, heart sedative, and emetic. Dosage: $\frac{1}{30}$ - $\frac{1}{15}$ grain, or, as an emetic, $\frac{1}{2}$ grain; wine, 5-60 minims.

tartar'ic acid. An acid derived from fermented grapes.

tar'trate. Any salt of tartaric acid.

taste. The sensation arising from stimulation of certain nerve endings in the tongue and soft palate. The sense of taste is dependent also upon that of smell, as is shown by the loss of taste that so often complicates a rhinitis. **T.-buds**, **t.-bulbs**, **t.-ends**, **t.-goblets**, terms used for the endings of the nerves connected with the sense of taste.

tax'is. The replacement of a prolapsed organ or part (as a hernia) by manipulation.

tease. To fray out a tissue into shreds.

teat. The nipple of the mammary gland.

tech'nic *tek-nēk'*, **technique.** Method.

teeth. The organs of mastication. **Bicuspid t.**, the fourth and fifth teeth from the center. **Canine** or **eye t.**, there are 4, 2 in each jaw, situated one on either side of the incisors. **Deciduous**, **milk** or **temporary t.**, those which are shed between 6 and 8 years of age; there are but 20. **Incisors**, the four front

teeth of each jaw. **Molar t.**, the 12 large teeth, situated 3 on either side the mouth, in each jaw, behind the bicuspids. **Permanent t.**, the 32 teeth which are cut after the loss of the deciduous t. **Wisdom t.**, the last tooth on each side of both jaws, they are the last four teeth to appear.

teg'ument (Lat. *tegmen* = a cover). The skin or integument.

telep'athy (Gr. *tele* = afar and *pathos* = feeling). Mind reading. Mental suggestion.

temper. Disposition, quality. The state of a compound resulting from the mixture of various ingredients.

temp'erament. Individual peculiarity of organization. Disposition.

temp'erture. The degree of heat stated according to some arbitrarily chosen scale.

temp'les. The flat portions of the head, just above the cheek bones, between the eyes and the ears.

temp'oral bones. The bones situated, one on each side of the head, below the parietal bones and constituting part of the sides and of the base of the skull. They contain part of the external and the whole of the middle and internal portions of the ears.

tena'cious. Adhesive. Inclined to hold fast.

tenac'ity. The quality or state of being tenacious.

tenac'ulum. A hook-shaped instrument intended to hold and lift blood-vessels, etc., during operation.

ten'derness. Abnormally acute sensitiveness.

ten'dinous. Of the nature of, or pertaining to, a tendon.

ten'do (Lat. *tendon*). A prefix signifying some relation to a tendon.

ten'dons. White, fibrous cords that hold muscles to bones.

tenes'mus. A constant desire to stool or urinate, or ineffectual, painful straining in the effort to do so. The condition is due to irritation of the intestine or bladder.

ten'iacide. Any agent that destroys tapeworms.

ten'iafuge. Any agent that causes the expulsion of tapeworms.

tenor'rhapfy. The suturing of a severed tendon.

tenot'omy. The cutting of a tendon.

ten'sion (Lat. *tendo* = to stretch).

(1) The act of stretching. (2)

The state of being stretched.

(3) Mental strain. **Arterial t.**, the pressure of the blood upon the walls of the arteries.

Intra-ocular t., the hardness of the eyeball due to the pressure of its fluid contents upon its walls.

tenuous. Thin, minute, not dense.

ter'ebinth. See Turpentine.

ter in die *ter in de'-ā* (Lat.).

Thrice in a day. The contraction *t. i. d.* is used to indicate that a medicine or other treatment is to be given three times a day.

ter'minal. Pertaining to, or placed at, the boundary, extremity, or end.

ter'nary (Lat. *terni* = three each).

(1) Consisting of three elements. (2) A group of three.

ter'pin. A coal tar product.

T. hydrate, a hydrate of terpin

used in bronchitis, hay-fever, and cystitis. Dose, 2-5 grains.

test (Lat. *testum* = crucible). A trial. Scientific examination. A reagent. **T. meal**, a meal given to discover if there is, or the nature of, any disease of the stomach.

tes'ticle, testis. Either one of the two ovoid glands, situated in the scrotum, which produce semen.

tet'anus, lockjaw. A very fatal disease due to the introduction of the *Bacillus tetani* into the tissues. This germ is a normal inhabitant of the intestines of cattle and is, therefore, always present in manure and is very prevalent in the soil. The germ remains in the wound, but its poison, which is 200 times as toxic as strychnin, is absorbed by the blood. The disease is characterized by a growing stiffness of the muscles, which begins in the neck and jaws and spreads gradually over the whole body, and by paroxysms of such extreme rigidity that the body becomes arched, sometimes to such a degree that the patient's head and heels almost touch. Any stimulus such as a touch, slight noise, or light may occasion such a spasm.

tet'any. A disease characterized by intermittent tonic spasms of the extremities. As a rule, it occurs as a sequel to other diseases and among infants or young adults.

tet'ra (Gr. *tettares* = four). A prefix denoting four.

tet'rad. Composed of four similar elements.

tet'ronal. A drug used as an hypnotic, that is similar in chemical composition and in

action to sulphonal and tri-
onal. Dose, 10-20 grains.

thal'amus, pl. **thalami**. An ovoid mass of gray matter at the base of the brain. It is also known as the *optic thalamus*.

the'a. Latin for tea.

theobro'min. An alkaloid present in the leaves and seeds of the *Theobroma cacao* trees, from the fruit seeds of which cocoa is prepared. Theobromin has somewhat the same physiologic properties as caffeine. **T. salicylate**, a salt of salicylic acid and t., used as a diuretic. Dose, 15 grains.

the'ocin. A drug resembling theobromin in its action. Used as a diuretic. Dose, 3-5 grains.

the'ory. An explanation of phenomena that accounts for them so satisfactorily that it seems to be true, though its validity has not been actually proved. When the explanation has been proved true the term *theory* is changed to *law*.

ther'apy. Same as therapeutics. Serumtherapy, the treatment of disease with antitoxins and other sera.

therm. A heat unit. It is the amount of heat required to raise 1 gram of water 1° C., 1000 calories.

therm'al (Gr. *thermos* = hot). Of, or pertaining to heat.

therm'o (Gr. *thermos* = hot). A prefix signifying heat.

thermocau'tery. See Cautery.

thermogen'esis (Gr. *thermos* = heat and *genesis* = production). The production of heat.

thermolyt'ic (Gr. *thermos* = heat and *lyo* = setting free). (1) Loss of heat from a body. (2) Disintegration by means of heat.

thermom'eter. An instrument for measuring the intensity of heat. A thermometer usually consists of a glass tube of capillary bore, at one end of which a bulb is blown. The bulb and part of the tube is filled with mercury, or other suitable liquid, and the whole is heated until the mercury boils and expels the air from the tube, which is then sealed and cooled. The bulb is placed in boiling water, and the mark to which the mercury rises is marked 212° F. or 100° C. The tube is then placed in a vessel of melting ice and the point at which the mercury stops is marked 32° F. or 0° C., the space between the freezing-point and the boiling-point is divided into a number of equal spaces, the size depending upon the kind of thermometer desired. **Centigrade t.**, one in which the freezing-point of water is registered as 0 and the boiling-point as 100°. **Clinical t.**, a self-registering thermometer used for taking the body temperature. **Fahrenheit t.**, one in which the freezing-point of water is registered at 32° and the boiling-point at 212°. **Réaumur t.**, one in which there are but 80° between freezing- and boiling-points. **Self-registering t.**, one in which the mercury remains at the mark to which it is raised until it is shaken down or exposed to a higher degree of heat. For table of equivalents of Centigrade and Fahrenheit scales, see page

therm'ostat (Gr. *thermos* = heat and *statos* = standing). A self-acting apparatus for regulating the heat in a furnace, etc.

thermostat'ic. Controlling or regulating temperature.

thigh. The portion of the leg above the knee. **T. bone,** the femur.

thio (Gr. *theion* = sulphur). A prefix sometimes used instead of sulphur to show that the latter is one of the ingredients of a compound.

thorac'ic. Pertaining to the chest. **T. duct,** see Lymphatic ducts.

tho'rax. The chest.

tho'rium. An element found in rare minerals, especially in the monazite sand of the Carolinas and Brazil. Oxides of thorium and cerium are used in the preparation of the Welsbach mantles for gas lights because of the intense light given out when they are heated.

thresh'old. A term used in psychology to express the lowest limit of sensibility or the weakest stimulus that will give rise to a sensation or come within the limits of perception.

throb. A strong pulsating beat.

throm'bin. A substance derived from the prothrombin or thrombokinase of the blood plates and leucocytes when these corpuscles are disintegrated. The change to thrombin is brought about by the calcium salts of the blood. Thrombin is one of the essential agents for the clotting of blood. See Coagulation.

thrombo'sis. The formation of a thrombus.

throm'bus. A clot formed, or deposited as the result of embolism, in a blood-vessel. Some of the more common causes of the formation of the clot in a living blood-vessel are: Injury to the walls of a

blood-vessel by accident, during operation, or by disease; the entrance of a foreign substance, as air, bacteria, etc., into a blood-vessel. Such things causing the abnormally rapid destruction of leucocytes and blood plates and consequent production of thrombin.

thrush. An inflammatory condition of the mouth and, in severe cases, of the pharynx, larynx, and esophagus. There are small white spots over the inflamed surface, which, later, ulcerate. The condition is usually attended with more or less fever and gastrointestinal disturbances. The exciting cause is the fungus, *Odium albicans*, the predisposing cause, improper care of the mouth.

thy'mol. A stearopten from the volatile oils of the *Thymus vulgaris* and similar plants. It is used as an antiseptic, both externally and internally, and it is also employed as an anthelmintic and antirheumatic. Dose, 1-10 grains.

thy'mus. A two-lobed glandular body situated below the thyroid. It is largest during intra-uterine life and infancy and disappears about the time of puberty. Its function is not known, but it is thought that it may have some connection with the reproductive organs.

thy'roid. An organ consisting of two small, oval masses of glandular tissue situated one on either side of the trachea. The exact function of the secretion of the thyroid is not known, but, if the gland is destroyed or removed, the condition known as *myxedema* occurs, and, if there is an overabundance of thyroid se-

cretion, the condition known as *exophthalmic goiter* results.

T. extract, an extract made from the thyroid glands of sheep and used in the treatment of myxedema. Dose of extract, $\frac{1}{4}$ –1 grain; of the dried gland, 1–4 grains.

tib'ia. The inner and larger of the two bones of the leg below the knee.

tib'ial. Pertaining to the tibia.

tic. A spasmodic twitching of muscles. **T. douloureux**, a severe form of facial neuralgia.

t. i. d. See *Ter in die*.

ti'dal air. The air that is inspired and expired during ordinary respiration. In an average sized man this amounts to about 500 c.cm. or 30 cubic inches.

tig'lium. See *Croton oil*.

tinc'ture (Lat. *tincture*). An alcoholic solution of a non-volatile substance. With a few exceptions the strength of official tinctures is either 10 or 20 per cent.

tin'ea. See *Ringworm*.

tin'nitus (Lat. *a tinkling*). Ringing in the ears.

tis'sue (Fr. *tissue* = a ribbon). An aggregation of similar cells forming a distinct structure and modified for the performance of a special function.

tone (Lat. *tonus*). The state of the body in which all of its parts are in a normal state of tension and vigor. **Muscle t.**, the slight constant contraction existing in living muscle.

ton'ic. Any medicine or other agent that improves the tone of the body or of a part.

tonsilli'tis. Inflammation of the tonsils. It is thought that germs causing such diseases

as endocarditis, acute rheumatism, and chorea may gain entrance to the body through the tonsils, especially while those glands are inflamed.

ton'sils. The small masses of lymphoid tissue, situated one on either side the mouth, between the pillars of the fauces.

to'nus. See *Tone*.

tooth. See *Teeth*.

to'phus, pl. **tophi** (Lat. *porous stone*). Stone-like concretions that sometimes form in the body, *e. g.*, the tartar that forms on improperly cared for teeth, and the deposits of sodium biurate that occur in the joints and other parts of the body in gout.

tor'por. Torpid, the state of being dull, inactive, sluggish.

tor'sion (Lat. *torsio* = to twist). The act of twisting or condition of being twisted.

torticol'lis (Lat. *tortus* = twisted and *collem* = neck). Wry-neck, *i. e.*, an unnatural position of the head due to contraction of muscles on one side of the neck.

toxe'mia. Poisoning, especially that due to the absorption of toxins produced by bacteria, or those arising as the result of defective metabolism or faulty elimination.

tox'ic. Poisonous.

tox'icant. Any poisonous substance.

toxicol'ogy. The study of poisons.

toxico'sis. Any disease resulting from poisoning.

tox'in. Any poisonous, nitrogenous substance produced by bacteria. **Endotoxins**, those toxins which remain wholly, or in a great part, within the cell during the life

of the germ and are liberated only when the latter becomes disintegrated at, or after, death. **Extra-cellular t.'s**, those which diffuse through the bacterial cell-wall during the life of the bacteria and are found in the culture media or the body in which the germs develop.

tox'oid. A modification of a toxin in which its toxophore group has been destroyed or altered while the haptophore group persists. A toxin is supposed to consist of two portions: a combining or haptophore atom group, which is able to unite with the corresponding antitoxin, and a specific toxophore atom group to which the poisonous action of the toxin is due.

tox'on. A poisonous product of bacterial growth possessing the same haptophore group as the toxin but with a toxophore group of far less avidity.

tox'ophore group. That part of the toxin by means of which its harmful effects are produced.

tr. An abbreviation for tincture.

tra'chea. The windpipe. The cartilaginous tube connecting the larynx and the bronchi.

tra'cheal. Pertaining to the trachea.

trachelec'tomy (Gr. *trachelos* = the neck and *temnere* = to cut). Amputation of the cervix uteri.

trachelor'haphy. Suture of a tear in the neck of the uterus.

tracheot'omy. Surgical incision of the trachea.

tracho'ma. Granulated eyelids, a disease of the conjunctiva associated with small granular elevations on the lids with

resulting cicatricial deformities. The disease is mildly contagious and once acquired it is difficult to get rid of.

trac'tion. The act of drawing or extending.

trag'acanth. A gum resin obtained from the *Astragalus gummifera*. It is used to make demulcent drinks and in the preparation of troches.

trance. A profound sleep from which the individual cannot be aroused. It is usually due to hysteria. **Hypnotic t.**, that induced by hypnotism.

transcen'dent. Surpassing all others in excellence.

transfix'. To pierce through. To impale.

transflux'. A flowing through.

transforma'tion. Change in appearance or nature.

transfor'mer. (1) That which causes transformation. (2) An induction coil by means of which electric pressure may be either raised or lowered.

transfu'sion. (1) The transfer of blood from the veins of one person into those of another individual. (2) The introduction of liquid, as physiological salt solution, into a vein, this is more commonly termed *intravenous infusion*.

translu'cent (Lat. *trans* = through and *lucens* = shining). Slightly transparent.

transmigration (Lat. *trans* = across and *migrare* = to migrate). To pass from one organ or place to another.

transmis'sion (Lat. *trans* = across and *missio* = a sending). (1) Sending or passing on. (2) The imparting of infection. (3) The transfer of disease or characteristics from parents to offspring.

transmuta'tion (*trans* = across and *mutare* = to change). The act of changing into a different substance or form.

transpira'tion (Lat. *trans* = through and *spirare* = to breathe). The exhalation or discharge of fluid vapor or air through a skin or membrane.

transplanta'tion (Lat. *trans* = across and *plantare* = to plant). To plant or graft skin or other tissue taken from another part of an individual's body or from that of another person.

transposi'tion. To displace or place in a different position.

transu'date (Lat. *trans* = through and *sudare* = to sweat). Matter that has passed through a membrane.

transuda'tions. The transuding or passage of any form of matter through the pores or interstices of a membrane or other porous substance.

transverse' (Lat. *trans* = across and *vertere* = to turn). Lying crosswise.

trape'zium (Gr. *trapezion* = a small table). (1) A quadrilateral figure. (2) One of the carpus or wrist bones.

trape'zius. The long trapeziform muscle extending from the base of the skull to the middle of the back and connected with the clavicle and scapula on each side.

trap'ezoid. One of the wrist bones.

trau'ma. A wound or injury.

traumat'ic. Pertaining to, or produced by, injury.

traum'atism. (1) A wound. (2) The general condition of the system following a severe injury.

treat'ments. The methods employed in curing disease.

trem'or (Lat. *tremere* = to shake). An involuntary trembling.

trem'ulous. Shaking or trembling.

Trendel'enburg. A surgeon in Leipzig, born 1844. **T. position**, that in which the patient is in the dorsal position, with the shoulders resting against shoulder supports, the legs bent at the knees over a support, and the head of the table depressed.

trep'h'ine. (1) The removal of a small circular piece of bone, usually from the skull. (2) The crown-saw used in performing the operation.

trepida'tion. Fear. Nervousness.

trep'pe (German, *staircase*). A term used in physiology in connection with the gradual increase of muscular contraction occurring as the result of the repeated stimulation of a muscle.

tri'angle (Lat. *tres* = three and *angulus* = angle). A three-cornered figure or space.

tri'ceps (Lat. *tres* = three and *caput* = head). Having three heads. A large muscle covering the back of the arm, that has three heads, two of which have their origin in the scapula and one in the humerus. The area of insertion is in the olecranon process of the ulna.

trichi'asis (Gr. *trichos* = a hair). Ingrowing eyelashes or a curving inward of the hairs around an orifice, as the rectum.

trichino'sis. A disease caused by the *trichina spiralis*, a small worm that man becomes infested with by eating imperfectly cooked pork containing the encapsulated lar-

væ. The worms are set free from the larvæ by the acid of the gastric juice and make their way into the mucous membrane of the intestine where they produce numerous embryos that enter the blood-vessels and are carried to all parts of the body. The embryos gradually come to rest, usually in the muscles, and become encapsulated. After this occurs, they sometimes cause no further trouble, the danger lies while the parasites are free. The symptoms produced during this time will depend upon the number of worms ingested. The symptoms appear about two weeks after eating the pork. There are, usually, abdominal pains, nausea, vomiting, diarrhea, muscular pains, edema of the face, and sometimes of the larynx, and, in severe infections, the temperature and the patient's general condition usually resemble typhoid; in such case, death often results.

tri'cho (Gr. *trichos* = a hair). A prefix implying likeness, or some relation to hair.

tri'choid. Resembling hair.

tricho'ma. An inward turning of the edge of an eyelid.

trichop'athy. Disease of the hair.

tricus'pid (Lat. *tri* = three and *cuspid* = point). Having three points. **T. valve**, the valve between the right auricle and ventricle of the heart.

trifa'cial. The fifth cranial nerve. Its fibers are distributed to the face, tongue, and muscles of mastication.

trini'trin, trintroglycerin. Same as nitroglycerin.

tri'onai. A hypnotic that resembles sulphonal in its chem-

ical composition and action. Dose, 10-30 grains.

triox'id. Any substance the molecule of which is composed of three atoms of oxygen and one of another element.

tro'car. A slender, sharp-pointed instrument used, in connection with a canula, to make a puncture, as in aspiration of the abdominal cavity.

trochan'ter. Either of the two processes on the upper end of the femur. **Greater t.**, the trochanter on the outer side of the femur. **Lesser t.**, that on the inner side.

troche *trō'-kē* (Gr. *trochos* = a cake). A medicated tablet or lozenge.

tro'chlea (Lat. *pulley*). A process on the inner surface of the humerus which articulates with the ulna.

troph'ic (Gr. *trophe* = nourishment). Pertaining to nutrition and development.

trun'cate. To amputate the extremities.

trunk. (1) The main body of anything. (2) The main stem of a vessel or nerve. (3) The body minus the head and limbs.

trypanoso'ma. A group of free-swimming protozoa occurring in the blood-plasma of mammals, birds, reptiles, and insects. Many of trypanosoma are pathogenic. One variety, the **t. gambiense**, is the cause of the sleeping sickness, a very fatal disease prevalent in certain parts of Africa.

tryp'sin. The ferment formed from trypsinogen when this zymogen, which is secreted by the pancreas, comes in contact with the enterokinase of the intestinal juice. Tryp-

sin helps in the digestion of proteins.

trypsinogen. The zymogen secreted in the pancreas, which, by the influence of the enterokinase of the intestinal juice, is split into trypsin and a protein substance.

tu'bal. Pertaining to a tube.

tu'ber. A knot or swelling.

tu'bercle. (1) Any small eminence or nodule. (2) A small nodule of thickened tissue which develops in certain diseases; *e. g.*, in tuberculosis, in places where the bacilli lodge a small tumor or tubercle grows over the invaders.

tuber'culin. Media containing extract of the tubercle bacilli. The bacilli are grown in the media for several weeks and then killed and removed. When tuberculin was first prepared it was hoped that it would be curative and preventive, but it has not proved to be either, and at present it is used more frequently for diagnostic than for therapeutic purposes. There are several methods of administering tuberculin for diagnostic purposes, some of the more common are; (1) The *Moro cutaneous test*; an ointment consisting of lanolin and 50 per cent. tuberculin is rubbed into the skin after the latter has been thoroughly cleansed and disinfected. If the patient has tuberculosis, small papules and vesicles will usually appear on the anointed area within twenty-four to forty-eight hours, but if the patient has not tuberculosis, there will be no reaction. (2) The *Von Pirquet cutaneous test*; the skin of the patient's forearm, after being cleansed and disinfected, is scarified and

the tuberculin rubbed in. The affirmative sign is the same as with the Moro Test. (3) The *subcutaneous test*; the tuberculin is given by hypodermic injection. The affirmative reaction following the use of tuberculin given in this way is a sharp rise of temperature within six or eight hours after the injection. A chill often precedes the rise of temperature, and with the fever there may be a rapid pulse, headache, nausea, and general malaise. (4) The *Calmette test*; the tuberculin is dropped into the conjunctival sac and, if the patient has tuberculosis, redness of the conjunctiva usually follows. This test is not now used as much as the others because a severe conjunctivitis has sometimes followed its use.

tuberculo'sis. A disease caused by the bacillus tuberculosis and characterized by the formation of tubercles in the part of the body in which the bacilli lodge. Any part of the body may be affected. In children the most common sites of the disease are the bones, joints, lymph nodes, peritoneum and meninges; in adults, the lungs. The formation of tubercles is one of nature's endeavors to protect the body, and it often results in the death of the germs, but, if it does not do so, the toxin produced by the bacteria disintegrates the tubercle and the surrounding tissue, forming a cheese-like mass. Unless the process is checked, this mass in time breaks down and, in the case of the lungs is expectorated, or, in other parts of the body, it may be discharged through the wound that it may be necessary to

make, such disintegration being frequently associated with pus formation, due to secondary infection by pus-producing organisms. If blood-vessels are injured in the course of the disintegration, as is particularly likely to happen in the lungs, there will be hemorrhage. The symptoms of the disease depend upon its location and the severity of the infection. If the latter is at all severe there will be intermittent fever, anorexia, increasing emaciation, and night-sweats, also, there is likely to be pain at the seat of the trouble and, when the lungs are affected, coughing and expectoration. **Acute miliary t.**, this form of the disease is supposed to be due to the rupture of a tubercle or infected lymph gland into a vein; in consequence of which bacteria are carried all over the body and start up tubercular processes in many or all of the organs, so that the patient becomes thoroughly poisoned. The symptoms closely resemble those of typhoid fever with the addition of others the nature of which will depend upon the organs that are principally affected; *e. g.*, there will be dyspnea, cough, and expectoration, if the lungs are the chief seat of the infection; headache, convulsions, and other symptoms of meningitis will occur if the principal lesion is in the brain; and pain, diarrhea, and abdominal distention if it is in the intestines and peritoneum. Death occurs within a few days or weeks.

tuber'culous. Caused by tuberculosis. **T. pneumonia**, this begins much like a lobar

pneumonia, but defervescence fails to take place, night-sweats and other tubercular symptoms come on, and the tubercular bacilli are soon found in the sputum. Death occurs in many cases, in others, the symptoms abate and a chronic phthisis ensues.

tuberos'ity. A knob-like prominence on a bone.

tubo. Used as a prefix to show connection with the Fallopian tubes or oviducts.

tu'bular. Shaped like, or pertaining to, a tube.

tu'bule. A small tube.

tumefac'tion (Lat. *tumeo* = to swell). To swell. To become like a tumor.

tu'mor. (1) Any swelling or morbid enlargement. (2) A mass of new tissue growing independently of the surrounding structures. Such tumors are said to be either innocent or malignant. Innocent tumors push the tissues aside and do not infiltrate them in the same way as do those of the malignant type. They may give trouble by pressure but, otherwise, they do not usually cause pronounced symptoms of general ill health and they do not tend to recur after removal. Malignant tumors, on the contrary, do all of these things. The cause of tumors is unknown. Some authorities consider that they are the result of irritation or injury to the tissues. Others think that tumors are developed from embryonic cells which are produced in greater amount than the fetus requires and remain gathered at a certain point until stimulated to development by irritation due to injury or by the physiological activity of the part.

Tumors, especially those of the malignant type, occur most commonly when the body is beginning to lose its vitality on account of age—*i. e.*, between the ages of forty-five and sixty—and in women the organs most likely to be attacked are those which are beginning to lose their function and atrophy; *viz.*, the uterus and breasts. **Adenoma**, an innocent tumor composed of gland cells. It may occur in the skin, breast, or any gland. **Angioma**, an innocent tumor consisting of blood-vessels. It occurs most frequently in the skin, where it is known as a nevus or birthmark. **Carcinoma**, a malignant tumor composed of gland cells. It may occur wherever glandular tissue is present, but the most common sites are the breasts, uterus, stomach, intestines, pancreas, and kidneys. There are several varieties which are distinguished by special names. **Chondroma**, an innocent tumor composed of cartilage. It occurs most frequently in the fingers of rickety children. **Fibroma**, an innocent tumor composed of fibrous tissue. It occurs most frequently in the uterus, ovaries, or gums. **Glioma**, a tumor composed of branching connective tissue cells. It occurs only in nerve tissue. It may be either innocent or malignant. **Gumma**, a soft gummy tumor that sometimes occurs in tertiary syphilis. It is made up of tissue that resembles granulating tissue and forms firm nodules which grow slowly and, later, tend to disappear. **Lipoma**, an innocent fatty tumor that forms most frequently under the skin as a soft, lobulated, painless swell-

ing which can be easily shelled out. **Lymphangioma**, an innocent tumor composed of dilated lymph-vessels. It occurs in the tongue. **Myoma**, an innocent tumor composed of unstripped muscular tissue. It occurs most frequently in the uterus, where it is usually multiple. **Myxoma**, a mucoid tumor; *e. g.*, a polypus of the nose. **Neuroma**, an innocent tumor composed of nerve fibers. It is peculiar to the trunks of nerves. **Odontoma**, a tumor that develops from a part of a tooth or its developing germ. It may be either innocent or malignant. **Osteoma**, an innocent bone tumor that grows from the skull bones and the long bones near the epiphyseal junctions. When in the latter location, an osteoma is known as an **exostosis**. **Papilloma**, a malignant tumor consisting of epithelium that arises in the skin or mucous membrane, especially at or near the orifices of the body. It usually begins as a wart or ulcer. **Sarcoma**, a malignant tumor composed of embryonic connective tissue. It may occur in any part of the body, at any period of life, and is the only malignant tumor likely to appear in individuals under about forty years of age. Secondary growths are likely to occur in various parts of the body, being spread by the blood and lymph.

tung'sten (Sw. *heavy stone*). A metallic element found as ferrous tungstate in the mineral wolfram.

tu'nic (Lat. *tunica*). A membrane which covers an organ or part.

tur'binatē, turbinatē (Lat. *turbo*=a top). Any one of the three scroll-shaped, cancellous bones, situated along the outer wall of the nasal fossæ. They are known as the *superior, middle, and inferior t. bones*. The two former are processes of the ethmoid.

turbin'otome. An instrument used for cutting a turbinate bone.

turgid ter'-jid. Congested.

tur'meric. A solution that comes from an oriental plant. Paper stained with the light yellow turmeric turns a deep red when dipped into an alkaline solution; therefore, turmeric paper is used as an indicator for alkalies.

turn of life. The menopause.

tur'pentine. A liquid oleoresin obtained from certain species of pines. **Oil of t.**, a volatile oil distilled from the oleoresin. It is used externally as a rubefacient, and it is taken internally to stimulate the intestines and to destroy intestinal worms, also it is a hemostatic. It is best to give it in capsules, on sugar, or in melted butter. Dose, 5-30 minims.

tus'sis. Latin for cough.

tympanites *tim-pan-i'-lēz* (Gr. *tympanon*=a drum). The accumulation of gas in the intestines or peritoneal cavity and consequent abdominal distention.

tym'panum (Gr. *tympanon*=a drum). (1) The middle ear. (2) The membrane separating the external and middle portions of the ear.

type. A distinguishing mark or characteristic. A general plan to which certain groups or species conform.

ty'phoid. An infectious disease due to infection by the *Bacillus typhosus*, which, usually, is taken into the body with contaminated food and drinking-water. It enters the walls of the gastro-intestinal tract where it multiplies rapidly. The chief seat of the disease is that part of the small intestine containing the Peyer's patches. This part of the intestine ulcerates and sloughs, but the symptoms arising in the course of the disease are not due to this process, but to the toxins elaborated by the bacteria and absorbed by the blood. The period of incubation is two to three weeks. The primary symptoms are headache, nausea, pain in back, legs, and abdomen, loss of appetite, coated tongue, epistaxis, diarrhea. The later symptoms are the enlarged spleen, Widal's reaction, rash, and liquid yellow stools with a "pea-soup" appearance. There may be either diarrhea or constipation. During the first week the temperature rises steadily, being a degree or a degree and a half higher each evening, and higher each morning, generally reaching 103° or 104° F. by the end of the first week. During the second week, the fever remains continuously high with but slight morning remissions. In the third week, these remissions become more marked, and, in favorable cases, there is a gradual decline of the fever, the temperature in mild cases even reaching normal by the end of the week. In the majority of cases, it does not, however, do this until the fourth week, and in some cases not even then. A sudden drop of temperature at

any time during the disease, unless the pulse rate decreases in proportion, is to be regarded with suspicion, as it is a symptom both of hemorrhage and perforation. The pulse in typhoid is, normally, very slow in proportion to the height of temperature; the usual rate being between 80 and 100. A sudden quickening of pulse rate is likely to be due to hemorrhage, perforation, or weakening of the heart. The tongue is at first coated and white. Later it becomes almost black in the center and very dry. When the tongue begins to clear at the edges and to grow moist, the approach of convalescence is indicated. The rash, as a rule, appears first on the abdomen. It consists of small, scattered, rose-colored spots, that disappear temporarily on pressure. It develops from the seventh to the tenth day, persists for two or three days, and then fades, leaving a brownish stain for a time. Successive crops continue to appear and fade, until about the middle of the third week. The spots are more abundant on the abdomen, the lower part of the chest, and the back, and, sometimes, are not present elsewhere. Sudamina may be present. Typhoid patients are dull and stupid. They are apt to be delirious, though not violently so. The spleen becomes enlarged and can often be felt below the lower border of the ribs by the end of the first week. Subsultus or trembling is often present in severe cases. It is considered an untoward symptom. Typhoid is likely to be complicated with, and followed by, many serious disorders. Those

complicating the disease may occur at the seat of infection; *e. g.*, hemorrhage, perforation, tympanites; they may be due to the effect of the poison upon the system—heart dilatation, a not infrequent complication, is usually due to this cause. Both complications and sequelæ may be due to the bacilli being carried by the blood to other organs and infecting them so that abscesses in various parts of the body may develop or endocarditis, empyema, periostitis, meningitis, pneumonia, inflammation of the eyes, of the ears, or the auditory nerve—with consequent deafness—phlebitis, thrombosis, and a host of other troubles. Such sequelæ sometimes develop long after the patient has recovered from the primary infection. Typhoid bacilli may persist in the system for years after a person has recovered from the disease and be constantly present in his excretions. They may not do the individual any harm, but they render him a source of danger to others.

ty'phus fever. One of the most highly infectious diseases. It is both endemic and epidemic. It is essentially a filth disease, and occurs chiefly in dirty, overcrowded tenement districts. In former years, outbreaks of the disease were common in jails and camps, and it often followed times of famine. The period of incubation is about twelve days. The symptoms are chill, rapid rise of temperature, accompanied by the usual febrile symptoms, intense headache, delirium, and a typical rash which appears on the fourth day. This rash comes out

gradually and is very diffuse, especially upon the chest, abdomen, arms, and thighs. It consists at first of slightly elevated, irregular, rose-colored macules which soon grow dusky in hue, lose their elevation and become petechial. The temperature remains continuously high during the first week; the morning remissions are more marked in the second week, and on the thirteenth or fourteenth day the temperature falls to normal. Convalescence is prompt.

tyro'sin. A product of intestinal putrefaction.

tyrotox'icon. A poisonous ptomain that occurs in decomposed milk and cheese.

U

Ul'cer. An open sore occurring upon a free exterior of either an external or internal surface of the body. The condition is attended with suppuration, necrosis, and sloughing of the part. Ulcers are due to some form of irritation and lack of proper nutrition of the affected tissues. Common causes are: Varicose veins, syphilis, diabetes, mellitus, pressure—*e. g.*, bed-sores—traumatism, the application of corrosive substances, and the action of intense heat or cold. **Gastric u.**, an ulcer in the inner wall of the stomach; a common cause is thought to be hyperacidity of the gastric juice in connection with certain contributing factors such as local anemia of the gastric mucosa or injury of the latter by chronic gastritis or continued irritation from other source. **Indolent** or **chronic u.**, one with a hard, elevated edge, and lack of

normal granulating tissue. Such ulcers are nearly painless, but they are hard to cure.

ul'cerate. To become ulcerous.

ul'cerous. Of the nature of an ulcer.

ul'na. The larger of the two bones of the forearm. It is situated on the inner side, *i. e.*, that of the little finger.

ul'nar. Pertaining to, or situated near, the ulna.

ul'timate. Final. Most remote in time or position.

ul'tra (Lat. *beyond*). Used as a prefix to signify beyond or on the farthest side of.

umbellif'erous. Having an umbel or area in which the pedicels all proceed from a single point as do the spokes of an umbrella.

umbil'ical. Pertaining to the umbilicus. **U. arteries**, the arteries which constitute part of the u. cord. They contain the blood flowing from the fetus to the mother. **U. cord**, the cord connecting the placenta with the umbilicus of the child. It consists principally of the two u. arteries and the u. vein encased in a mass of gelatinous tissue called *Wharton's jelly*. **U. hernia**, hernia at or near the umbilicus. **U. vein**, that in the u. cord, it holds the blood flowing from the mother to the fetus.

umbil'icated. Containing depressions that resemble the umbilicus.

umbil'icus. The navel.

unciforme un'-sif-orm (Lat. *uncus*=hook and *forma*=form). Hook-shaped. **U. bone**, one of the small bones of the wrist.

uncina'ria. Same as ankylostoma.

unc'tion, unguentum. Latin for ointment.

undula'tion (Lat. *unda* = wave). A wave-like motion.

u'ni- (Lat. *unus* = one). A prefix implying one.

u'nit. A single one. The number or quantity forming the base of a standard of measurement, etc.

univ'alent. See Valence.

unmed'ullated nerve. A nerve that is not enclosed in a medullary sheath, *i. e.*, the white opaque substance known as the *white substance of Schwann*.

unoffic'ial. Not sanctioned by recognized authority.

unorg'anized. Devoid of organs. Inorganic. **U. ferment,** one that is secreted by a cell, an enzyme.

ura'nium. A metallic element obtained from pitchblend.

u'rate. Any salt of uric acid. Much of the nitrogenous waste of the body is eliminated in the urine in the form of urates.

ure'a. A white, crystallizable, nitrogenous substance, which constitutes nearly one-half of the total quantity of the solid substances of urine. It is formed in the body, largely in the liver, by the oxidation of protein substances derived from food and, to some extent, from body tissue. Formerly it was thought to be poisonous, but experiments have shown that it is not; see Uremia.

ure'mia. A form of auto intoxication characterized by headache, vertigo, nausea, vomiting, dimness of vision, convulsions, coma, and a urinous odor of the breath. It is thought to be due to the presence of urinary constituents

in the blood but the nature of the poison is not known. Formerly the urea was thought to be the poisoning element, but it has been found that urea by itself is not actually poisonous and could not produce the symptoms of uremia.

u'reter. The tube connecting a kidney with the bladder.

ureterot'omy. Incision of a ureter.

ure'thane. A combination of carbonic acid and ethyl ether that is used as a hypnotic. Dose, 10-40 grains.

ure'thra. The membranous canal through which the urine passes from the bladder.

urethri'tis. Inflammation of the urethra.

ureth'roscope (Gr. *oureter* = the urethra and *skopeo* = to see). An instrument used when examining the interior of the urethra.

urethrot'omy. Incision of the urethra.

u'ric acid. A crystallizable acid derived from the body tissues and from ingested food, especially substances containing nucleoproteins. It is thought that it is formed by the oxidation of the nuclei of cells. Next to urea it, in the form of urates, is the medium by which the largest quantity of nitrogen is excreted from the body.

u'rial. A receptacle to receive the urine.

u'rinary. Pertaining to the urine.

urina'tion. The voiding of urine.

u'rine. The excretion of the kidneys. Normal urine consists of water, holding in solution certain organic substances (*e. g.*, urea, urates, creatin, creatinin, xanthin,

etc., which are waste products of the protein substances of food and of body tissue), salts, and pigments. Also there may be, even in health, various other matter present derived from unusual articles of food or from drugs that have been taken into the system. **Incontinence of u.**, inability to retain the urine in the bladder. **Retention of u.**, inability to pass the urine collected in the bladder. **Suppression of u.**, failure of the kidneys to secrete urine.

urinif'erous (Lat. *urina*=urine and *ferre*=to bear). Carrying urine. **U. tubules**, small tubes or ducts contained in the substance of the kidneys through which the urine, as it is secreted from the blood, passes to the calices of the kidneys.

urinom'eter. An instrument for ascertaining the specific gravity of urine.

u'rolith (Gr. *ouron*=urine and *lithos*=a stone). A urinary calculus.

urotro'pin, hexamethylenamin. A drug formed by the action of formaldehyd and ammonia. It is used as a diuretic and as an urinary antiseptic in pyelitis, cystitis, and similar disorders of the kidneys and bladder. Its action is due to the formalin being set free and excreted by the kidneys and the urine thereby rendered an antiseptic solution. Dose, 5-7 grains.

urtica'ria, nettle rash, hives. An abnormal condition that manifests itself by the appearance on the skin of an eruption of pale-red wheals that are associated with intense itching. Common causes are gastro-intestinal irritation, ex-

citement, and, in some individuals, the condition is caused by the ingestion of certain foods or medicines.

Uteral'gia, metralgia (Lat *uterus* =womb and Gr. *algos*=suffering). Pain in the uterus.

u'terine. Pertaining to the uterus. **U. appendages**, the Fallopian tubes and ovaries. **U. gestation**, normal pregnancy. **U. inertia**, deficiency of contractile power in the uterus during labor. **U. involution**, the process by which after pregnancy, the uterus regains its natural size and shape. **U. souffle**, a sound heard on auscultation over a pregnant uterus, see Souffle.

uteri'tis. Inflammation of the uterus.

u'terus. A hollow, muscular, pear-shaped female organ of gestation situated in the pelvic cavity, between the rectum and the bladder. The virgin uterus is about 3 inches long, and, at its greatest width, 2 inches broad.

u'tricle (Lat. *utriculus*=a small skin or sac). One of the two small sacs situated in the vestibule of the inner ear. See Vestibule.

u'vea or uveal tract (Lat. *uva*=grape). The iris, ciliary body, and choroid of the eye. So called because of their dark color due to the pigment or coloring matter contained in their substance.

u'vula (Lat. *little grape*). The small, pointed projection of the soft palate.

u'vular. Pertaining to the uvula.

V

Vac'cinate (Lat. *vacca*=cow). To inoculate with a virus so

as to obtain immunity from a disease. See Immunity.

vac'cine (Lat. *vacca* = cow). Any substance containing attenuated bacteria or their toxins, which, when introduced into the body, will excite its cells to form antibodies. Vaccines are so called because the first vaccine used was the virus of cow-pox lymph, taken from the vesicles occurring in cow-pox.

vac'ule. A cavity in the interior of a cell.

vac'uous. Empty.

vac'uum. A space from which all air has been exhausted and which contains no material substance.

vagi'na va-ji'-nah (Lat. *a sheath*). A membranous sac which encircles the lower portion of the cervix of the uterus and extends downward and forward to the vulva, behind the bladder and in front of the rectum.

vag'inal (Lat. *a sheath*). Of the nature of a sheath. Belonging to the vagina.

vag'inate. To ensheathe.

vaginis'mus. Spasm of the vagina.

vagini'tis. Inflammation of the vagina. **Gonorrheal v.**, that due to infection by the gonococci.

va'gus, pl. **vagi** (Lat. *wandering*). The pneumogastric or tenth cranial nerve, fibers of which are distributed to the pharynx, trachea, lungs, esophagus, stomach, heart, and liver.

val'ence. That property of an element which determines the number of atoms of another element its atom can combine with. Elements that can hold only one atom of another

element in combination are said to be *univalent* or *monovalent*; those which can hold two univalent elements, are said to be *divalent* or *bivalent*; those which can combine with three univalent elements are classed as *trivalent*, similarly, elements can be *tetravalent*, *quadravalent*, *pentavalent*, etc. A divalent element will combine with but one atom of another divalent element; a trivalent will combine with one divalent and one univalent element and so on. A few of the elements can combine and form stable compounds with different numbers of elements; such are said to have a *variable valence*.

val'e'rian. A drug obtained from the root of the *Valeriana officinalis*. Its chief uses are as a gastric stimulant and nerve sedative. Dosage: fluid-extract, 10-30 minims; tincture, $\frac{1}{4}$ -1 dram.

val'gus. Bow-legged.

valve (Lat. *valva* = a folding door). Folds of the membrane lining the heart, certain of the blood-vessels and other passages which act as a door and prevent regurgitation. **Aortic v.**, the semilunar valve at the opening between the heart and aorta. **Bicuspid v.**, that between the left auricle and left ventricle of the heart. **Ileocecal v.**, that between the ileum and the cecum. **Mitral v.**, same as bicuspid. **Semilunar v.'s**, those between the heart and the aorta and the heart and the pulmonary artery. **Tricuspid v.**, that between the right auricle and ventricle.

va'por. The gaseous state of a body which at ordinary temperatures is solid or liquid.

vaporiza'tion. The conversion of solid or liquid matter into gaseous form.

varicel'la. See Chicken-pox.

varicocele *var'-ik-o-sēl*. Varicose of the veins of the spermatic cord.

varico'la. See Smallpox.

var'icose. Knotted. **V. vein,** see Varix.

va'rix, pl. varices. A swollen tortuous vein. The more common situations of varices are, the superficial veins of the legs; the veins of the testicle (varicocele) and those of the anus (hemorrhoids). Varices are due to interference with the venous circulation, thus obesity, abdominal tumors, and pregnancy are common causes; constipation is a frequent source of hemorrhoids, and much standing and the wearing of tight garters of varices of the legs. The latter cause pain, swelling, congestion, and may give rise to eczema or ulceration from hindrance to the circulation.

vas, pl. vasa (Lat. *a vessel*). A blood or lymph-vessel. **V. deferens,** the excretory duct of the testicle.

vas'cular. Pertaining to, or containing many, blood-vessels.

vas'elin. A jelly-like substance obtained by treating the undistilled portion of petroleum with superheated steam and then filtering it.

vas'o (Lat. *vas* = a vessel). Used as a prefix to denote relation to the blood-vessels.

vasoconstric'tor. (1) A nerve that causes constriction of the blood-vessels. (2) A drug or other agent that through its action upon the nerves causes the constriction of blood-vessels.

vasodila'tor. A nerve, drug, or other agent that causes the dilation of blood-vessels.

vasom'otor. (1) Pertaining to the constriction and dilatation of blood-vessels. (2) The nerve-centers and nerves which regulate the constriction and dilatation of blood-vessels. (3) Drugs and other agents which, through their action on the nervous system, cause such changes in the caliber of the blood-vessels.

vegeta'rian. One who lives upon vegetables, other plant foods, milk, eggs, and the like, abstaining from meat and fish.

vegeta'tion. (1) The process of growing. (2) Fungus-like growths and deposits.

veins. The vessels which hold the blood flowing toward the heart.

ve'na. Latin for vein.

venere'al. Pertaining to sexual intercourse.

venesec'tion. See Phlebotomy.

venipunc'ture. Puncture of a vein for therapeutic purposes.

ven'om. A poison; especially one secreted by animals, insects or reptiles.

venos'ity. An excess of venous blood in a part.

vent. An opening.

ventila'tion. The continuous introduction of pure air into a room or building, the mixing of it with the contained air, and the simultaneous extraction of a like quantity of impure air.¹ **Extraction or vacuum v.,** that accomplished by extracting air from a room or building and thereby creating a vacuum, which, by reason

¹ D. H. Bergey, A.M., M.D., *Principles of Hygiene*, p. 64, W. B. Saunders Co.

of atmospheric pressure, the outside air is sucked or pressed in to fill. **Propulsion** or **plenum v.**, that in which fresh air is forced into the room and the air thus added causes some of that already in the room to leave by the vents provided for the purpose.

ven'tral (Lat. *ventris* = the belly). Pertaining to the abdomen.

ven'tricle (Lat. *ventriculus* = a small cavity). The name given to certain small cavities in the body. **V.'s of the brain**, the cavities in the interior of the brain, they are known as the *two lateral*, the *third*, *fourth* and *fifth ventricles*. **V.'s of the heart**, the two lower cavities of the heart.

ventric'ular. Pertaining to the ventricles.

verat'rium. A drug derived from the roots of the *Veratrum viride* or *Green hellebore*. It is used chiefly as a heart sedative. Dosage: fluid-extract, 1-3 minims; tincture, 5-15 minims.

verm'icide (Lat. *vermis* = a worm and *cadere* = to kill). An anthelmintic drug; *i. e.*, one that will kill worms.

verm'iform. The shape of a worm.

verm'ifuge (Lat. *vermis* = a worm and *fugare* = to expel). A drug that helps in the expulsion of worms from the intestine.

ver'nix caseo'sa (Lat. *cheesy varnish*). The layer of fatty matter which covers the skin of the fetus.

ver'sion. The act of turning, especially, turning the fetus in the uterus so as to change the presenting part and bring it into a more favorable position for delivery.

ver'tebra, pl. **vertebræ**. Anyone of the 33 bones which compose the spine or vertebral column. There are 7 cervical, 12 dorsal, 5 lumbar, 5 sacral, and 4 coccygeal vertebræ. After youth the sacral vertebræ unite, forming the sacrum, and the coccygeal do likewise, forming the coccyx.

vertebra'ta. A division of the animal kingdom comprising animals which have a vertebral column, whether of bone or cartilage. It includes mammals, birds, reptiles, frogs, and fishes.

ver'tex. The summit or top of anything.

ver'tical. Perpendicular.

ver'tigo. Dizziness.

ves'icant (Lat. *vesica* = blister). A blistering agent.

ves'icle (Lat. *vesica* = bladder, blister). (1) Pertaining to the bladder. (2) A small sac or bleb containing fluid.

ves'ico (Lat. *vesica* = bladder). Used as a prefix to denote relation to the bladder.

ves'tibule. The cavity in the internal ear which communicates with the cochlea in front and with the semicircular canals behind. The membrane within the vestibule is constricted in the center so that it appears like two small sacs connected with a Y-shaped tube. The two sacs are called respectively the *sacculæ* and the *utricle* and the connecting tube, the *ductus endolymphaticus*.

ves'tige. A structure which is well developed in the embryo but disappears after birth.

vi'a (Lat. = a way). By way of.

viabil'ity. Ability to live.

vi'able. Able or likely to live outside of the uterus.

vi'bex, pl. **vibices** (Lat. *the mark of a blow*). A hemorrhagic spot larger than those called *petechiæ* and smaller than ecchymoses.

vibra'tion. (1) A rapid to and fro movement. (2) A form of massage.

vi'bratory. Causing vibration. Caused by vibration. **V. motion**, periodic motion in which the moving body is continually moving back and forth.

vi'brio, pl. **vibriones**. A term applied to short spiral or comma-shaped bacillus.

vibur'num. A drug obtained from the **V. Prunifolium** or **Black haw**. It is used principally as a uterine antispasmodic. Dose of fluid-extract, $\frac{1}{4}$ -1 dram.

vica'rious (Lat. *vicarium* = a substitute). (1) Acting as a substitute. (2) Occurring in one place instead of another. **V. menstruation**, a periodic discharge of blood or other fluid from the nose, breast, stomach or other organ, the usual uterine flow being absent.

vice (Lat. *in place of*). A spot or blemish.

vic'ious. Faulty. Depraved.

vig'or. Energy. Strength.

vil'lus, pl. **villi** (Lat. *a tuft of hair*). A hair-like process such as those which cover the chorion and part of the mucous membrane of the small intestine. The villi in the latter location consist principally of blood-vessels and lacteals held together with connective tissue and covered with membrane. They serve

to absorb the digested food products from the intestine.

vin'egar. A weak and impure solution of acetic acid, produced by the fermentation of alcoholic liquids, such as cider, wine, etc.; vinegar is made also by the fermentation of malt, grain, sour apples, and the like and by the distillation of wood. **Mother of v.**, *mycoderma aceti*, the scum which forms on the surface of cider or wine during its conversion into vinegar. Different organisms are contained in this scum several species of which are able to bring about acetic fermentation.

vir'ile. Pertaining to the male sex.

viril'ity. Masculine. The power of procreation of the male.

vir'ulent. Poisonous, malignant. Caused by or of the nature of virus.

vir'us. Poisonous matter produced by disease and capable of propagating that disease by inoculation. Any deleterious agent of parasitic or germ origin.

vis, pl. **vires** (Lat. *force, power*). Force, strength, energy.

viscera vis'-er-ah, pl. of **viscus** (Lat.). The internal organs.

viscid vis'-id, **vis'cous.** Sticky. Of a semifluid, glutinous nature.

viscosity vis'-kos'-it-é. The state of being viscous.

vis'cus. See Viscera.

vis'ible. Capable of being seen.

vis'ion. The act of seeing. The rays of light reflected from the objects in front of the eyes enter the latter through the pupils and, by means of the refractory apparatus, are brought to a focus on the

retina where they set up a series of nerve impulses in the optic nerve-fibers which pass along the optic nerve to the brain and there give rise to sight. How these nerve impulses get translated into a mental impression is not known, and neither is the nature of the impulses which arise in the retina understood. It is thought by some authorities that the origin of the stimulus which affects the optic nerve endings in the retina is of a photo-chemical nature, such as that produced by light upon sensitized photographic films.

vis'ual. Pertaining to sight. **V. purple**, a pigment contained in the retina which is acted upon by light and is thought to be concerned in the chemical action that is supposed to take place in the retina and give rise to the nerve impulses which, after transmission to the brain, result in vision.

vis'ualize. (1) To make visible. (2) To call up a distinct mental image of anything.

vi'tal (Lat. *vita*=life). Belonging, or essential, to life.

vi'tal'ity. Animation. The principle of life.

vi'tals. Parts or organs that are essential to life.

vitel'lin. A protein substance contained in the yolk of eggs.

vit'reous (Lat. *vitrum*=glass). Pertaining to, or resembling, glass. **V. body**, or **humor**, the transparent jelly-like substance which fills the posterior chamber of the eye.

vit'riol. (Lat. *vitrum*=glass). A name sometimes used for the crystalline sulphates. Oil of **v.**, sulphuric acid.

vivisec'tion (Lat. *vivus*=alive and *sectio*=a cutting). The dissection of living animals.

voice. Sound emitted by the speech organs. Voice is produced by the vibratory movements of the vocal cords. The vibration of the cords is caused by the air that is driven against them by a more or less prolonged expiratory movement. During speaking, the vocal cords are drawn together so that the glottis becomes a mere slit. The character of the voice depends on small structural differences in the larynx and the amount of control that the individual can exert on the muscles of the larynx. In women and boys the voice is higher than in men, because their vocal cords are shorter and vibrate a greater number of times per second. **Breaking of the v.**, the alteration that takes place in a boy's voice at puberty when, due to the rapid enlargement of the larynx and vocal cords, the neuromuscular control of the vocal cords becomes for a time uncertain.

vo'lar (Lat. *vola*=the palm of the hand). Pertaining to the palm of the hand or the sole of the foot.

vol'atile (Lat. *volatus*=flight). Possessed of the property of evaporating easily. **V. oils**, those which can be distilled without decomposition and which evaporate readily.

vol'atilize. To convert into vapor.

volit'ion (Lat. *volere*=to wish). Exercise of the will. Choice.

volt. The unit of electromotive force. It is the degree of force necessary to cause one ampere of current to flow against

one ohm of resistance (called after Alessandro Volta, an Italian physicist).

vol'tage. The strength of electromotive force expressed in volts.

vol'untary. Controlled by the will.

volup'tuous. Pertaining to sensual pleasures. Having a disposition to indulge in sensual pleasures.

vo'mer. The small, thin bone which forms the back part of the wall between the two nostrils.

vom'it. (1) To eject matter from the stomach through the mouth. (2) The vomitus or matter vomited. **Bilious v.**, that containing bile; it is dark green in color and is often noted when vomiting persists after the stomach has been emptied of food. **Coffee-ground v.**, that containing blood which has been decomposed in the stomach. **Fæcal v.**, that containing feces, it occurs in intestinal obstruction and when there is a gastro-intestinal fistula. **Purulent v.**, that containing pus.

vul'nerary (Lat. *vulnus* = a wound). Pertaining to wounds. An agent that helps in the healing of wounds.

vulsel'lum, volsella. A forceps each blade of which has a hooked extremity.

vul'va. The external organs of generation of the female.

vulvi'tis. Inflammation of the vulva.

W

Wa'fer. A flat capsule which is used to inclose a dose of medicine.

Walcher's position. A position in which a patient is sometimes placed, to facilitate delivery, when there is trouble in making the child's head enter the pelvic brim. The patient lies on her back, her legs hanging over the edge of the table and the buttocks raised on a thick pillow. In this position the true conjugate diameter of the pelvis is lengthened by nearly half an inch.

walking typhoid. An attack of typhoid fever in which the symptoms are so mild that the individual is not confined to bed and is not aware that he has typhoid.

wandering. Moving about; unsettled. **W. cell,** a leucocyte.

wart. Small growths on the skin consisting of hypertrophied papillæ. They may be produced by anything that irritates the skin.

Wassermann's reaction or test. A test for syphilis, first described by August Wassermann, a German bacteriologist. It consists in mixing a specimen of blood serum obtained from the suspected patient with an extract of the liver of a syphilitic fetus. If the person has syphilis, hemolysis occurs but if he has not, there is no reaction.

water. An oxid of hydrogen. H_2O . Distilled water, see Distillation. **W. glass,** a solution of sodium silicate. **Hard W.**, that containing compounds of calcium and magnesium. If the compounds are sulphates, or other salts which are not precipitated by boiling, the hardness is said to be *permanent*, but when the hardness is due to soluble carbonates of magnesium or calcium, which are changed

to insoluble carbonates, by the loss of CO_2 on boiling, and precipitated, the hardness is said to be *temporary*. **Hunyadi Janos w.**, a purgative saline water from springs in Hungary. **Javelle's w.**, a solution of potassium hypochlorite, used as a bleaching agent. **Mineral w.**, that containing sufficient mineral matter to give it taste. **Soft w.**, that in which there is little mineral matter and no calcium and magnesium compounds.

weight. The heaviness of a body measured by a given standard. For tables of weights and measures see p.

wen. A cyst of a sebaceous gland.

wet-nurse. One who suckles the child of another.

Wharton's jelly. The jelly-like mucous tissue constituting the bulk of the umbilical cord.

wheal. A white or pink raised stripe or ridge on the skin.

why. The part of milk which remains when the fat and casein have been removed. It consists of the water, lactalbumin, sugar, and salts of the milk.

whis'key, spiritus frumenti. An alcoholic liquor containing about 45-50 per cent. of ethyl alcohol. It is distilled from barley, wheat, rye, molasses, potatoes, etc. For therapeutic action see Alcohol.

whites. A popular name for leucorrhea.

whoop'ing cough, pertussis. An infectious disease the specific cause of which has not yet been discovered. The period of incubation is from 4-14 days. The disease is characterized by an acute catarrh of the mucous membrane of

the respiratory tract and a characteristic cough. In the first stage, which lasts from one to two weeks, the symptoms are those of an acute bronchitis with slight fever (101° to 102° F.). In the second stage, the fever subsides, the cough becomes more frequent and is often accompanied by paroxysms of breathlessness, cyanosis, bulging of the eyes, and distension of the veins. The cough frequently ends with a characteristic whoop caused by the spasmodic closure of the glottis. Vomiting and epistaxis are often induced by the paroxysms. The cough is thought to be caused by irritation of the filaments of the pneumogastric nerve by the toxins produced by the microorganisms causing the disease. In mild cases, there may be only two or three paroxysms a day, while in others there are as many as fifty or even more.

Widal test. A drop of blood serum obtained from a suspected typhoid patient is mixed with a pure culture of typhoid bacilli; if the patient has typhoid, clumping or agglutination of the bacilli will occur.

win'dow. See Fenestra.

wind'-pipe. See Trachea.

wine. (1) The fermented juice of grapes. (2) Medicinal preparations with a basis of wine. The per cent. of alcohol in wines varies, port contains about 30-40 per cent.; sherry, about 17; and the sweet wines, as Burgundy and Madeira, 6-7 per cent.

Wormian bones. Small irregular ossicles on the edges of the cranial bones where the latter

come together. Called after Olaus Worm, a Dutch anatomist, 1588-1654.

wound. A break in the continuity of tissue. **Aseptic w.**, one that is not infected by bacteria. **Contused w.**, one associated with more or less bruising and crushing of the tissues. **Incised w.**, one made with a sharp implement and not complicated by any tearing or crushing of the tissues. **Lacerated w.**, one in which the tissues are torn. **Punctured w.**, the kind of a wound made with a pointed instrument or a gunshot wound. **Septic w.**, one that is infected with pathogenic microorganisms.

writer's cramp. See Cramp.

wry-neck. See Torticollis.

X

Xan'thin (Gr. *xanthos* = yellow).

One of the protein substances derived from the catabolism of nucleoproteins, both those of food and of body tissue. It exists in the muscles and constitutes one of the substances, known as *extractives*, which are found in meat. It leaves the body in the urine. Xanthin compounds are formed also in plants; examples are the caffeine of coffee and theobromin of cocoa.

xantho'sis (Gr. *xanthos* = yellow).

Yellow discoloration.

xero'sis (Gr. *xerasia* = dryness).

Abnormal dryness, as of the skin, hair, etc.

xi'phoid (Gr. *xiphos* = a sword and *eidos* = form). Shaped like a sword. **X. cartilage**, the lowest portion of the sternum, known also as the ensiform.

X-rays. See Röntgen rays.

Y

Yeasts, blastomycetes. Microscopic plants which multiply by a process called budding; *i. e.*, the mother cell sends out a small projection of cell membrane into which some protoplasm flows. The bud thus formed gradually enlarges until it is the size of the original cell and then the isthmus between the two cells constricts and the new cell breaks off. The majority of yeasts can form spores under suitable conditions and these varieties are classed as *saccharomycetes*, but there are certain wild or uncultivated varieties which do not seem to do so, nor have they as relatively great fermentative power; these are termed *torula*. Another class, the *Oidium*, resemble molds in that they show a marked tendency to grow out into long threads or hyphæ. Certain of these are pathogenic. Yeast cells are widely distributed through the air and they are not as easily killed by drying as bacteria. They are destroyed by a high temperature; boiling a substance in which they are contained will kill them almost immediately. Yeasts elaborate several ferments by means of which they can split starch to dextrine and maltose, maltose and saccharose to dextrose, and dextrose to alcohol and carbon dioxid. The manner in which these changes are accomplished and the by-products produced in the reactions vary with different species of yeasts and for this reason pure cultures are necessary for good results in the making of alcoholic beverages and of bread. **Brewers' y.**, that which is obtained from

the brewers' fermenting vats. **Compressed y.**, small, soft cakes consisting of large quantities of yeast plants mixed, as a rule, with starch and a varying amount of other material. The yeast for the purpose is generally obtained from brewers' vats, washed, and the water removed by pressure. Such yeast cakes are good only while fresh for the yeast thus obtained is not a perfectly pure culture and undesirable microorganisms often develop when the cakes are kept for any length of time. **Dried y. cakes**, cakes prepared by mixing yeast that has been cultivated with certain ingredients, chiefly starch, pressing the mixture into cakes and then drying the product at a low temperature. Before using such cakes, they should be allowed to soak in a warm sugar solution in order that the yeast organisms may be brought to a condition of growth and activity by the warmth and a food upon which they can readily feed.

yellow fever. An infectious disease of tropical and subtropical countries. No special causative organism has been found, but experiments have proven that such must exist and that it is transmitted from man to man by means of a mosquito—the *Stegomyia fasciata*. The period of incubation varies from a few hours to five days. The disease generally begins with a chill, or, in children, with convulsions. The temperature rises during the chill, to 103°–104° F. There are muscular pains, especially in the legs and lumbar region, jaundice of the skin and conjunctivæ. The eyes look watery,

glazed, and sunken. Albuminuria appears early in the disease, but usually clears up as soon as the other symptoms subside. There may be hemorrhage from any part of the body. The "*black vomitus*" which is a frequent complication in severe attacks of the fever signifies hemorrhage into the stomach. The temperature, except during and after the chill, is rarely very high even in extreme cases. As a rule, it falls shortly after the chill to 102° or 103° F., and remains so until the second, third, or fourth day, when it falls to about normal. It remains thus for twenty-four to thirty-six hours, and then rises to 102° or a little above. If recovery takes place, the temperature subsides—either by crisis or by lysis—in a day or two. Suppression of urine and hemorrhage are the two most dreaded features of the disease.

yolk. (1) The yellow portion of an egg. (2) The living, nutrient portion of the ovum.

Z

Zinc. A bluish-white metal element. When zinc is subjected to the action of certain acids, salts of zinc are formed, many of which are used medicinally.

Zn. The symbol for zinc.

zo'na. Latin for zone; a girdle or belt. *Z. pellucida*, the innermost membrane of the ovum.

zoo'glea (Gr. *zoon*=a living creature and *gloia*=glue). A stage in the development of certain microorganisms in which they clump together in a gelatinous matrix.

zoöl'ogy (Gr. *zoon*=a living creature and *logos*=a discourse). That branch of biology devoted to the study of animals.

zoz'ter. See Herpes zoster.

zwie'back (Germ. *twice baked*).

A certain kind of bread that is cut in slices and rebaked.

zy'mase. The enzyme of yeast which produces alcoholic fermentation.

zy'mogen. A proferment or inactive ferment. The zymogen may be stored in the glands in the form of granules

which are converted into an active enzyme at the moment of secretion or it may be secreted in inactive form and require the action of some other substance before it becomes active; *e. g.*, the trypsinogen of the pancreatic juice becomes active trypsin only under the influence of the enterokinase of the intestinal juice. Were such enzymes as pepsin and trypsin active while in the glands in which they are formed and where they are undiluted by food, the glands might be digested.

ABBREVIATIONS

A LIST OF ABBREVIATIONS FREQUENTLY USED IN WRITING PRESCRIPTIONS

| <i>Abbreviation</i> | <i>Derivation</i> | <i>Meaning</i> |
|---------------------|-------------------|---------------------|
| āā., | ana, | of each. |
| A. c., | ante cibum, | before meals. |
| Add., | addo, | add. |
| Ad. lib., | ad libitum, | as much as desired. |
| Alt. dieb., | alterius diebus, | every other day. |
| Alt. hor., | alterius horis, | every other hour. |
| Alt. noc., | alterius nocta, | every other night. |
| Aq. dest., | aqua destillata, | distilled water. |
| Aq. pur., | aqua pura, | pure water. |
| B. i. d., | bis in die, | twice in a day. |
| C., | congius, | a gallon. |
| C., | | centigrade. |
| c., | cum | with. |
| C. c., | | cubic centimeter. |
| Cap., | capiat, | let him take. |
| Decub., | decubitus, | lying down. |
| Dil., | dilutus, | dilute. |
| F., | | Fahrenheit. |
| F., | fac, | make. |
| Fld., | fluidus, | fluid. |

A LIST OF ABBREVIATIONS FREQUENTLY USED IN
WRITING PRESCRIPTIONS—*Continued*

| <i>Abbreviation</i> | <i>Derivation</i> | <i>Meaning</i> |
|---------------------|----------------------------------|-----------------------------------|
| Ft., | fiat, | let it be made. |
| Gm., | | gram. |
| Gr., | granum, grana, | grain, grains. |
| Lb., | libra, | pound. |
| Liq., | liquor, | liquid. |
| M., | misce, mistura, | mix, mixture. |
| M., | minimum, | a minim. |
| O., | octarius, | a pint. |
| Ov., | ovum, | egg. |
| P. c., | post cibum, | after meals. |
| P. r. n., | pro re nata, | as occasion arises. |
| Pulv., | pulvis, | a powder. |
| Q. h., | quaque hora, | every hour. |
| Q. s., | quantum sufficit, | as much as is sufficient. |
| ℞., | recipe, | take. |
| S. or sig., | signa, | give the following directions. |
| S. o. s., | sic opus sit, | if necessary. |
| Sp. gr., | | specific gravity. |
| Ss., | semi, semissis, | one-half. |
| S. v. r., | spiritus vini recti- ficatus, | alcohol. |
| S. v. g., | spiritus vini gallici, | brandy. |
| S. f., | spiritus frumenti, | whiskey. |
| T. i. d., | ter in die, | three times a day. |
| Tr., | tinctura, | tincture. |
| Ung., | unguentum, | ointment. |
| μ, | micron, | the millionth part of a meter. |
| ℥, | drachma, | dram. |
| ℥, | uncia, | ounce. |
| ℥, | scrupulum, | a scruple. |

CHEMICAL SYMBOLS THAT ARE FREQUENTLY USED TO REPRESENT COMMON COMPOUNDS

| COMPOUND | SYMBOL | COMPOUND | SYMBOL |
|-------------------------|--------------------|-----------------------------|-----------------------------|
| Acetylene | C_2H_2 | Hydrogen peroxid | H_2O_2 |
| Acid, acetic | $C_2H_4O_2$ | Mercuric chlorid | $HgCl_2$ |
| written also | CH_3COOH | (corrosive sublimate) | |
| butyric | $C_4H_8O_2$ | bichlorid of mercury | |
| carbolic (phenol) | C_6H_5OH | Mercurous chlorid (calomel) | $HgCl$ |
| carbonic | H_2CO_3 | Nitrous oxid | N_2O |
| citric | $C_6H_8O_7 + H_2O$ | Potassium bromid | KBr |
| hydrochloric | HCl | carbonate (potash) | K_2CO_3 |
| lactic | $C_3H_6O_3$ | chlorate | $KClO_3$ |
| nitric | HNO_3 | chlorid | KCl |
| oleic | $C_{18}H_{34}O_2$ | cyanid | KCN |
| oxalic | $H_2C_2O_4 + H_2O$ | hydroxid | KOH |
| palmitic | $C_{16}H_{33}O_2$ | (caustic potash) | |
| stearic | $C_{18}H_{36}O_2$ | iodid | KI |
| sulphuric | H_2SO_4 | nitrate | KNO_3 |
| tartaric | $C_4H_4O_6$ | (saltpeter) | |
| Accohol, methyl or wood | CH_4O | Silver chlorid | $AgCl$ |
| written also | CH_3OH | nitrate | $AgNO_3$ |
| ethyl or grain | C_2H_5O | Sodium bicarbonate | $NaHCO_3$ |
| written also | C_2H_5OH | carbonate | $Na_2CO_3 + 10H_2O$ |
| Ammonium chlorid | NH_4Cl | chlorid | $NaCl$ |
| hydroxid | NH_4OH | hydroxid | $NaOH$ |
| gas | NH_3 | nitrate | $NaNO_3$ |
| oxalate | $(NH_4)_2C_2O_4$ | (Chili saltpeter) | |
| Benzene | C_6H_6 | peroxid | NaO |
| Calcium carbonate | $CaCO_3$ | phosphate | Na_3PO_4 |
| hydroxid | | sulphate | $Na_2SO_4 + 10H_2O$ |
| (slaked lime) | $Ca(OH)_2$ | Starch | $(C_6H_{10}O_5)_x$ |
| oxid | | Sugar, cane | $C_{12}H_{22}O_{11}$ |
| (lime) | CaO | fructose or { | |
| sulphate | $CaSO_4$ | levulose { | $C_6H_{12}O_6$ |
| Carbon dioxid | CO_2 | galactose { | $C_6H_{12}O_6$ |
| monoxid | CO | glucose or { | $C_6H_{12}O_6$ |
| Cellulose | $(C_6H_{10}O_5)_x$ | dextrose { | |
| Copper sulphate | $CuSO_4$ | lactose or { | $C_{12}H_{22}O_{11} + H_2O$ |
| Dextrin | $C_6H_{10}O_5$ | milk-sugar { | |
| Ether | $(C_2H_5)_2O$ | maltose or { | $C_{12}H_{22}O_{11} + H_2O$ |
| Formaldehyd | CH_2O | malt-sugar { | |
| Glycogen | $(C_6H_{10}O_5)_x$ | | |

A TABLE OF THE ELEMENTS

| ELEMENT | SYMBOL | ATOMIC WEIGHT ¹ | NATURE | WHERE FOUND |
|-------------------------|--------|----------------------------|--|--------------------------|
| Aluminium (Aluminum) | Al | 27.1 | A white metal that is very light, stiff, and strong. It is a good conductor of heat and of electricity, but it radiates heat so rapidly that a somewhat longer time is required to cook food in utensils | In many soils and rocks. |

¹ The weight of an atom of an element as compared with that of an atom of hydrogen.

| ELEMENT | SYMBOL | ATOMIC WEIGHT | NATURE | WHERE FOUND |
|------------------------------------|--------|---------------|--|---|
| Antimony (Lat. <i>Stibium</i>) | Sb | 120.2 | made of aluminium than in those made of the other metals used for the purpose. Aluminium oxidizes readily and is easily affected by acids, both organic and inorganic, and by strong alkalis. A bluish-white, hard, brittle, solid. | Occurs in nature chiefly as a sulphid called stibnite, but is found also as an oxid and as a constituent of various complex minerals. |
| Argon | A | 39.9 | Gas. | In the air. |
| Arsenic | As | 75.0 | A steel-gray brittle metallic-looking substance. | In various ores. It occurs most frequently as a sulphid of arsenic. |
| Barium | Ba | 137.4 | A pale-yellow metal. | In minerals. |
| Beryllium | Be | 9.1 | Metal. | In beryl and in various minerals. |
| Bismuth | Bi | 208.5 | A grayish-white crystalline solid. | Occurs in certain localities in uncombined state, and also as an oxid and sulphid. |
| Boron | B | 11.0 | Resembles silicon. | Chiefly in borax and boracic acid. |
| Bromin | Br | 79.96 | A dark red liquid, about three times as heavy as water. Its vapor has an offensive odor and is very irritating to the eyes, throat, etc. | In sea salt and the salt of various springs and salt deposits. |
| Cadmium | Cd | 112.4 | Resembles zinc. | In zinc ores. |
| Cæsium | Cs | 132.9 | A white metal. | Chiefly in mineral springs. |
| Calcium | Ca | 40.1 | Silvery-white metal. | In various compounds as marble, limestone, fluorspar, phosphorite, gypsum, etc. |
| Carbon | C | 12.00 | A solid that is amorphous in charcoal; crystalline in diamond and graphite. Its compounds are numerous and occur as gases, liquids, and solids. | In all organic matter and a few inorganic substances as diamonds, calcium carbonate, sodium carbonate, etc. |
| Cerium | Ce | 140.25 | Resembles iron. | In a few rare minerals. |
| Chlorin | Cl | 35.45 | A greenish-yellow gas. It has a peculiar suffocating odor, and, if inhaled, produces a severe irritation of the respiratory tract. It has a strong affinity for hydrogen and it combines readily with many metals. | In sea-water and in salt-deposits in the forms of chlorids, especially those of sodium, potassium, and magnesium. It is never found free in nature. |

| ELEMENT | SYMBOL | ATOMIC WEIGHT | NATURE | WHERE FOUND |
|---------------|--------|---------------|--|--|
| Chromium | Cr | 52.1 | A hard metal. | In chromite or chrome iron ore. |
| Cobalt | Co | 59.0 | Metal. | Occurs chiefly in combination with arsenic and sulphur. |
| Columbium | Cb | 94.0 | Metal. | In columbite and a few other rare minerals. |
| Copper | Cu | 63.6 | Metal. It is very malleable, but tough and strong. It only melts at a temperature of 1084° F. It is a good conductor of heat and electricity and does not readily radiate heat. It is not affected by acids and alkalis, but it oxidizes easily and its oxids are soluble in both acids and alkalis, especially the former, and are poisonous. For this reason acid food cooked in a tarnished copper utensil may cause poisoning. | Free and in various ores. |
| Coronium | | Not known | Gas. | In the sun. |
| Crypton | K | 80.0 | A very inert gas. | In the air. |
| Erbium | Er | 166.0 | A metal-like solid. | In some rare metals, as thulium and holmium. |
| Fluorin | F | 19.0 | Gas, resembles chlorin. | In a few minerals chiefly fluorspar. |
| Gadolinium | Gd | 156.0 | Solid. | In a few minerals. |
| Gallium | Ga | 70.0 | Metal. | In some zinc blends |
| Germanium | Ge | 72.5 | Metal. | In the metal argyrodite. |
| Glucinum | Gl | 9.03 | Metal. | In beryl and a few minerals. |
| Gold (aurum) | Au | 197.2 | Metal. | Free and in ores. |
| Helium | He | 4.0 | A light gas. | In the atmosphere. |
| Hydrogen | H | 1.008 | A very light gas. It is the lightest of the elements and, therefore, the one with which the weight of the others is compared. | In water and in many other compounds both organic and inorganic. |
| Indium | In | 113.6 | Metal. | In zinc ores. |
| Iodin | I | 126.97 | Purplish-black crystals which vaporize at ordinary temperatures, giving off a violet-vapor of unpleasant odor. | Iodin occurs free in sea-water, from which it is absorbed by certain sea-plants, so that it is found in their ashes. Also it is found in salt springs and beds and in Chili saltpeter. |
| Iridium | Ir | 193.0 | Metal. | In a rare mineral called iridosmin. |
| Iron (Ferrum) | Fe | 55.9 | Metal. | Occurs chiefly in minerals and in the |

| ELEMENT | SYMBOL | ATOMIC WEIGHT | NATURE | WHERE FOUND |
|-----------------------|--------|---------------|---|--|
| Krypton | Kr | 81.8 | Gas. | and oxids. It is contained also in both plant and animal bodies. |
| Lanthanum | La | 138.9 | Metal. | In the atmosphere. |
| Lead (Plumbum) | Pb | 206.9 | Metal. | In a few rare metals. |
| Lithium | Li | 7.03 | Silvery-white alkali metal. | Occurs chiefly as a sulphid called <i>galena</i> . |
| Magnesium | Mg | 24.36 | White metal. | In a few metals, as lepidolite and, in the form of carbonates and chlorids, in some mineral waters. |
| Manganese | Mn | 55.0 | A hard gray metal somewhat like iron. | It is a constituent of many rocks, also salts of the metal are found in sea-water and salt-deposits. |
| Mercury (Hydrargyrum) | Hg | 200.00 | A heavy silvery liquid. | In some iron ores and minerals and as a dioxid called <i>pyrolusite</i> . |
| Molybdenum | Mo | 96.0 | A metal-like element. | It occurs chiefly as a sulphid called <i>cinnabar</i> , and in globules of metal inclosed in the cinnabar. |
| Neodymium | Nd | 143.6 | | In molybdenite. |
| Neon | Ne | 20.0 | An inert gas. | In a few rare minerals. |
| Nickel | Ni | 58.7 | Metal. | In the air. |
| Nitrogen | N | 14.04 | Gas. | In metallic ores. It is usually found combined with arsenic or sulphur. |
| Osmium | Os | 191.0 | Metal. | In the air and in many organic and inorganic substances. It is an essential constituent of all living matter. |
| Oxygen | O | 16.00 | Colorless, odorless, tasteless gas, slightly heavier than air. | In platinum and iridosmin. |
| Palladium | Pd | 106.5 | A silver-white metal. | It occurs free in the air; in the combined state, it forms $\frac{2}{3}$ of water and enters into the composition of all organic, and nearly all inorganic, compounds. |
| Phosphorus | P | 31.0 | A yellowish, waxy, soft solid. | Free and in combination with other metals, especially gold and platinum. |
| Platinum | Pt | 194.8 | A grayish-white metal of high luster, very malleable and ductile. It does not combine readily with other form of sulphids | In the form of various phosphates. P. occurs in many organic and inorganic substances. |

Free in certain localities in Russia, California, Brazil, and Australia.

| ELEMENT | SYMBOL | ATOMIC WEIGHT | NATURE | WHERE FOUND |
|-----------------------------------|--------|---------------|--|--|
| Potassium (Kalium) | K | 39.15 | elements and stands a very high degree of heat. A soft alkali metal. It decomposes water very vigorously and the heat evolved in the chemical reaction is sufficient to ignite the hydrogen set free. | In many rocks, minerals, and organic compounds. It is never found free in nature. |
| Praseodymium | Pr | 143.5 | | In a few minerals. |
| Radium | Ra | 225.0 | | In pitchblend. |
| Rhodium | Rh | 102.9 | White metal. | Usually in connection with platinum. |
| Rubidium | Rb | 85.5 | Metal. | In certain mineral springs. |
| Ruthenium | Ru | 101.7 | Metal. | Associated with platinum. |
| Samarium | Sm | 150.3 | | In a few rare minerals. |
| Scandium | Sc | 43.97 | | In a few minerals. |
| Selenium | Se | 78.87 | A non-metallic solid. | In some minerals and sulphur. |
| Silicon | Si | 28.4 | A non-metallic solid substance that occurs in both crystalline and amorphous forms. | Next to oxygen, silicon is the most abundant element in nature; it is never found free, but its compounds constitute a large portion of the earth's crust. It is generally prepared from quartz. |
| Silver (Lat. <i>Argentum</i>) | Ag | 107.66 | A lustrous white metal. | Free and in many ores. |
| Sodium (Lat. <i>Natrium</i>) | Na | 23.05 | A soft alkali metal that resembles potassium. | It is never found free, but its compounds are numerous and widely distributed. They occur in rocks, sea-water, salt deposits and organic matter. |
| Strontium | Sr | 87.6 | An alkaline earth. | In the metals strontianite and celestite. |
| Sulphur | S | 32.06 | A pale yellow crystalline solid. | Free, especially in the neighborhood of volcanoes and in the form of sulphates and sulphids, in a variety of minerals and many organic substances. |
| Tantalum | Ta | 183.0 | A black powder-like solid. | In a few minerals. |
| Tellurium | Te | 125.0 | A silver-colored crystalline solid. | In a few minerals. |
| Terbium | Tb | 159.0 | | In a few minerals. |
| Thallium | Tl | 204.1 | A soft white metal belonging to the same class as aluminium. | In many ores, in the minerals known as <i>pyrites</i> , and in combination with sulphur. |
| Thorium | Th | 231.9 | A gray metallic powder of the nature of cerium. Oxids of these two elements are used in the preparation of Welsbach | In a few rare minerals. |

| ELEMENT | SYMBOL | ATOMIC WEIGHT | NATURE | WHERE FOUND |
|-----------------------|--------|---------------|---|--|
| | | | mantles, because of the intense light given out by a mixture of these oxids when they are heated. | |
| Thulium | Tm | 171.0 | | In a few rare minerals. |
| Tin (Stannum) | Sn | 119.0 | A soft metal that melts at about 235° F. and is very malleable. It is not affected by dilute acids, but concentrated acids attack it readily. | It occurs chiefly as the oxid called <i>cassiterite</i> or <i>tinestone</i> . The principal mines of tinestone are in Cornwall, England, the Malay Peninsula and the East India Islands. |
| Titanium | Ti | 48.1 | Resembles silicon. | In almost all soil, many rocks, and in small amounts, in plant and animal tissues. |
| Tungsten (Wolframium) | W | 184.0 | A very hard, brittle, nearly infusible metal. | Chiefly as ferrous tungstate in the mineral wolfram. |
| Uranium | U | 238.5 | A rare metal belonging to the same class as tungsten. | In pitchblend and a few minerals. |
| Vandium | V | 51.2 | A crystalline metallic substance. | In a few minerals. |
| Victorium | Vi | | Metal. | In earth. |
| Xenon | Xe | 128.0 | Gas. | In the air. |
| Ytterbium | Yb | 172.6 | A solid substance. | In a few minerals. |
| Yttrium | Yt | 89.0 | An earth metal. | In a few minerals. |
| Zinc | Zn | 65.4 | A heavy bluish metal. It melts at 420° F. and boils at 950° F. At 150° F., it is malleable and can be rolled into thin sheets. It does not rust readily and, when pure, is not affected by dilute acids, except nitric acid. If brought into contact with strong alkalies, chemical action results. | In a few ores. |
| Zirconium | Zr | 90.6 | A solid that occurs in both crystalline and amorphous forms. | In a few rare minerals. |

POISONS

CLASSIFICATION.—According to their action poisons are classified as:

(1) *Corrosives*—those which corrode and burn the tissues.

(2) *Irritants*—those which irritate the tissues.

(3) *Neurotics*—those which produce their harmful effects by their action on the nervous system.

NATURE OF TREATMENT.—The treatment for poisoning has three objects in view: (1) to remove the injurious substance; (2) to neutralize any substance that may remain in the stomach and so prevent its further action; (3) to remedy the ill effects already produced. The first object is attained by performing lavage or giving an emetic; the second, by giving some substance that will combine chemically with the poison and form a comparatively harmless compound; *e. g.*, acids are given when alkali poisons have been taken and alkalies when the poisoning agent is an acid, because acids and alkalies unite to form salts which are usually harmless; tannin—which can be obtained in a strong infusion of tea—precipitates nearly all the alkaloids, forming substances that are insoluble and cannot therefore be absorbed, consequently it is used as a chemical antidote for poisoning by drugs of this class. The precipitate thus formed is not always very stable therefore lavage must be repeated after giving the tannin; in fact, it is generally well to give lavage and the antidote alternately three or four times. The *physiologic treatment*, *i. e.*, that resorted to for the attainment of the third object, consists in the use of agents that will counteract the effect of the poison upon the system, *e. g.*, treatment for shock will be always necessary; demulcent drinks will be required after poisoning with corrosive or irritating substances; after poisoning by neurotics that excite the nervous system, extreme quiet will be imperative; after poisoning by neurotics that are nerve depressants, the patient must be kept awake. An important thing to remember with regard to the treatment of poisoning is that treatment must be begun promptly, since many drugs are absorbed from the stomach or intestines very readily.

Formerly, emetics were always given except after corrosive poisons, but it has been found that emesis produces such marked prostration that emetics are no longer used when it is possible either to wash out the stomach or to remove its contents with a stomach pump. In emergency, when there is no stomach tube to be had, any rubber tubing of small caliber—*e. g.*, that on a fountain syringe bag—can be used. Emetics are never given after poisoning by corrosive poisons, since the tissues of the esophagus would be further corroded during emesis; lavage is given when there is not sufficient abrasion of the mucous membrane to prevent the passing of the tube. The emetics most commonly used are:

Sodium chlorid (salt)—two teaspoonfuls in a glass of water, repeating the dose several times, if necessary.

Mustard—one or two teaspoonfuls in a glass of water.

Apomorphin—gr. one-tenth to one-eighth, given hypodermatically.

Ipecac—m. xxx of the fluid extract.

Sulphate of zinc—grs. xx to xxx.

Tickling the back of the throat with the finger will usually produce emesis.

A TABLE OF SOME OF THE MORE COMMON POISONS

| POISON | SYMPTOMS OF POISONING | CHEMICAL ANTIDOTE | PHYSIOLOGICAL TREATMENT |
|---|---|---|--|
| Corrosive Acids: Acetic. Citric. Hydrochloric. Nitric. Sulphuric. | Corrosion of the mucous membrane, intense abdominal pain, livid, cold skin, small, irregular pulse, stupor, collapse. There may be convulsions. | Alkalies, soda, magnesia, chalk, lime-water. | Demulcent drinks, as oil, milk, and albumin, stimulants, opium, external heat. |
| Oxalic. | As above. | Chalk or lime. Neither potash nor soda can be used, since their oxalates are poisonous. | As above. |
| Carbolic. | As above. Also odor of carbolic in breath, vomitus, and urine. Strangury and sometimes retention of urine. Smoky urine. | Sulphate of magnesia, sulphate of soda, lime-water, syrup of lime, or alcohol. | As above, but give no oil since oil hastens absorption. Catheterize. |

| POISON | SYMPTOMS OF POISONING | CHEMICAL ANTIDOTE | PHYSIOLOGICAL TREATMENT |
|---|---|---|---|
| Hydrocyanic | Almost immediate loss of consciousness, eyes protruding and showing pupils dilated, pulse imperceptible, respiration very slow, odor of acid on the breath. | Acts too quickly for any antidote to be of use. | Artificial respiration, cold water to head and spine. stimulants, external heat. |
| Corrosive Alkalies: Ammonia. Caustic Potash or Soda Potassium Nitrate. Calcium. | Excoriation of tissue, violent abdominal pain, vomiting and purging of bloody matter. Usual symptoms of collapse. | Mild acids—vinegar or lemon juice, sour cider. | Heat, stimulants, milk, oil, white of eggs for ammonia. Cold air, artificial respiration. |
| Irritants: Antimony. | Epigastric pain, shrunk features, cramps of lower extremities, convulsive spasms, collapse. | Tannic acid (strong tea.) | Demulcent drinks, heat. |
| Arsenic. | Puffiness and itching about the eyelids, intense abdominal pain, violent vomiting, hiccough, intense thirst, straining, stools bloody and offensive, collapse, sometimes convulsions. | Iron. Common preparations of iron used for this purpose are: (1) Tersulphate of iron in a strength of one part iron to four of water. Mix two ounces of this with eight of a 1% solution of magnesium carbonate. Let it remain in the stomach fifteen minutes; then wash out stomach. Repeat two or three times. (2) Tincture of iron hydrated with sufficient ammonia to deposit the iron in a thick sediment; the sediment then to be washed by putting it in a fine strainer lined with gauze and pouring water over it. Mix a tablespoon of the precipitate with milk or water. Repeat the dose at intervals. Eight grains of the iron are required to neutralize one grain of arsenic. | Demulcent drinks, heat, stimulants if necessary. Catheterize. |
| Bichlorid of Mercury. Blue Mass. Calomel. | Salivation, metallic taste, mucous membrane sometimes glazed and white, vomiting of blood and mucus, tenesmus, dysenteric purging, diminishing urine. Collapse | White of egg in water. One egg to every four grains of mercury. | Copious mucilaginous drinks, heat, stimulants if necessary, milk and flour paste. |

| POISON | SYMPTOMS OF POISONING | CHEMICAL ANTIDOTE | PHYSIOLOGICAL TREATMENT |
|------------------------|--|--|--|
| | after a short time and convulsions. | | |
| Iodine. | Pain and burning of alimentary canal, vomiting, purging, yellow stain about mouth. | A paste of starch or flour and water. | As for bichlorid of mercury. |
| Lead. | Slate colored lines on the gums along margin of incisor teeth, colic, and other symptoms of irritant poisons, paralysis of extensor muscles of forearms. | Sulphate of sodium or magnesium, white of eggs and milk. | As above. |
| Phosphorus. | Odor of garlic in breath, "coffee-ground" vomitus which is luminous in the dark; jaundice and usual symptoms of irritant poisons. | Crude French acid turpentine, in 3ss doses every 15 minutes. Use sulphate of copper as emetic. Give purgatives. Never give oils, since they hasten absorption. | As above. |
| Gases. | Embarrassed respiration, frequent, weak, irregular pulse, cyanosis, dilated pupils, loss of sensibility in the conjunctiva. | | Loosen all bands, lower head, heat, stimulants, fresh air, artificial respiration. Keep tongue forward. After illuminating gas, phlebotomy is often performed. |
| Neurotics: Aconite. | Characteristic tingling, pulse irregular, intermittent, and slow; respirations shallow, weak, sighing, and slow; anesthesia of the surface, anxious expression; eyes glaring, dilated, and protruding. The mind is usually clear, but there are often convulsions. (Acute poisoning.) | | Atropin, digitalis, heat, keep head low, artificial respiration. |
| Alcohol. | A short period of excitement followed by coma, respirations irregular and stertorous, pupils either dilated or contracted, face flushed, pulse frequent and hard. | | Heat to extremities, cold applications to head, in halations of ammonia. |
| Belladonna. | Dryness of mucous membrane and skin, general rash resembling that of scarlet fever, pupils dilated and staring, headache, vertigo, restlessness, and noisy delirium. | | Catheterize frequently, hot mustard baths, cold affusion to head, artificial respiration. |

| POISON | SYMPTOMS OF POISONING | CHEMICAL ANTIDOTE | PHYSIOLOGICAL TREATMENT |
|-------------|--|---|---|
| Chloral. | Respiration slow, irregular, and shallow, pulse first weak and slow, then rapid, irregular, and thready, coma, almost complete relaxation of the muscles, pupils contracted and then dilated. | | Alcoholic stimulants, strong coffee, mustard pastes, hot foot-baths, electricity, heat. |
| Digitalis. | Pulse irregular, slow, weak, and out of proportion to the heart-beat, headache, face pale, eyes staring and prominent. Sclerotics blue, vomiting, great prostration, rapid respiration, convulsions. | Tannin. | Strychnine, keep patient quiet and in horizontal position. |
| Hyoscyamus. | Either deep sleep and unconsciousness, or noisy delirium followed by coma, intense thirst, dilated pupils. | | Same as belladonna. |
| Nux Vomica. | Tonic convulsions, face livid, mouth contracted,—“risus sardonicus,”—eyes open and staring. Death is usually the result of paralysis of the respiratory muscles. | Tannic acid or tincture of iodine. Follow immediately by emetics, as compounds thus formed are not permanent. | Absolute quiet, bromid, chloral, or chloroform for convulsions; catheterize to prevent reabsorption. |
| Opium. | Intense desire for sleep, respiration slow and stertorous, contracted pupils, face first flushed, then pale, pulse at first full, slow, and strong, but gradually becoming rapid and weak, profuse perspiration. Retention of urine is frequent. | Potassium permanganate. Use for lavage. | Keep patient awake, artificial respiration, atropin if necessary, strong black coffee by rectum and mouth. An important thing to remember in regard to opium poisoning is that the lavage must be frequently repeated, even when the drug has been taken hypodermatically; for opium is alternately absorbed from, and excreted into, the stomach, so long as it is in the system. |

SOME FREQUENTLY USED PREFIXES AND SUFFIXES

PREFIXES

| PREFIX | DERIVATION | MEANING |
|-----------------|------------------|---|
| A | | (With words of Greek derivation) not, from. |
| Ab | Lat. | From. |
| Ad | Lat. | To, near. |
| Aden | Gr. adēn | A gland. |
| Adeno | Gr. “ | “ “ |
| Aēr | Gr. aēr Lat. aer | Air. |
| Algi | Gr. algos | Pain, suffering. |
| Algio | Gr. “ | “ “ |
| Amido | | Used with chemic names to denote that the substance represented by the latter part of the name is modified by the substitution of the radical NH_2 for hydrogen. |
| Amino | | Used to represent membership of a group of chemic compounds formed from ammonia by replacing hydrogen with an alcohol radical. |
| An | Gr. | Not. |
| An | Gr. ana | Up, to increase, each. |
| Anta | Gr. anti | Against. |
| Ante | Lat. | Before. |
| Anti | Gr. | Against. |
| Auto | Gr. autos | Self. |
| Bi, bis | Lat. | Twice, double. |
| Caco | Gr. kakos | Bad, evil. |
| Cat, cata, cath | Gr. kata | Down. |
| Centi | Lat. centum | Hundred. |
| Cephal | Gr. kephalē | A head. |
| Chromo | Gr. chrōma | Color. |
| Circum | Lat. | Around. |
| Co, com, con | Lat. | Together. |
| Contra | Lat. | Against. |
| Cysto | Gr. kystis | Bag, pouch, bladder. |
| Dacry | Gr. dakry | A tear; used to indicate some relation to tears or the lachrymal apparatus of the eye. |
| Dacty | Gr. daktylos | A finger; used to denote some relation, or resemblance, to fingers. |

| PREFIX | DERIVATION | MEANING |
|-----------------|---------------|---|
| De | Lat. | From, not. |
| Deca | Gr. deka | Ten. |
| Deci | Lat. decimus | Tenth. |
| Demi | Lat. dimidius | Half. |
| Derma | Gr. | The skin. |
| Di, dis | Gr. | Double, twice. |
| Dipla, dipio | Gr. diploos | Double. |
| Dys | Gr. | Difficult, bad, ill. |
| Ec | Gr. ek | Out. |
| Ecto | Gr. ektos | Without, on the outside. |
| Ef, es; ex | Lat. ex | Out. |
| En | Lat. | In, into. |
| Endo | Gr. endon | Within. |
| Entero | Gr. enteron | An intestine. |
| Ento | Gr. entos | Within. |
| Epi | Gr. | Upon. |
| Exo | Gr. ex | Out of, outside. |
| Extra | Lat. | On the outside, beyond. |
| Fore | A. S. | Before, in front of. |
| Galact, galacto | Gr. galaktos | Milk. |
| Gaster, gastro | Gr. gaster | The stomach, the belly. |
| Glosso | Gr. glōssa | The tongue; denoting some relation to the tongue. |
| Hem, hæm, he- | Gr. haima | Blood; denoting some relation to blood. |
| mato | | |
| Hemi | Gr. | Half. |
| Hepa | Lat. hepar | Liver. |
| Hetero | Gr. heteros | Other, dissimilarity. |
| Homo, homeo | Gr. homos | Same. |
| Hydra, hydro | Gr. hydōr | Water; denoting some connection with water or hydrogen. |
| Hyper | Gr. | Over, above, beyond. |
| Hyp, hyph, hypo | Gr. | Under, weaker. |
| Idio | Gr. | Peculiar to one's self, one's own. |
| Ileo | Lat. ileum | Indicating relation to the ileum. |
| In | Lat. | In, into. |
| Infra | Lat. | Beneath. |
| Inter | Lat. | Between. |
| Intra | Lat. | Within. |
| Intro | Lat. | Within. |
| Iso | Gr. isos | Equal. |
| Juxta | Lat. | Near. |

| PREFIX | DERIVATION | MEANING |
|-----------------------|----------------|--|
| Karyo | Gr. karyon | Nucleus, nut. |
| Kata, see cata | | |
| Kera | Gr. keras | Horn; used to indicate hardness, callosity, or toughness. |
| Kinesia | Gr. kinesis | Movement. |
| Lacto | Lat. lac | Milk; denoting some relation or resemblance to milk. |
| Laparo | Gr. lapara | The loin; used to indicate relation to the loin or the abdomen. |
| Laryn, laryngo | Gr. laryngx | The larynx; used to indicate some relation to the larynx. |
| Latero | Lat. lateralis | Side. |
| Lepto | Gr. leptos | Small. |
| Leuco, leuko | Gr. leucos | White. |
| Litho | Gr. lithos | A stone. |
| Macro | Gr. macros | Large. |
| Mega, megalo | Gr. megas | Large, great. |
| Melano | Gr. melanos | Black. |
| Meso | Gr. mesos | Middle. |
| Meta | Gr. meta | Beyond, over, between, change or transposition. |
| Metra, metro | Gr. mētra | The uterus. |
| Micro | Gr. mikros | Small. |
| Mio | Gr. meion | Less, smaller. |
| Mono | Gr. monos | Single. |
| Multi | Lat. multus | Many. |
| My, myo | Gr. myos | A muscle; denoting relation to muscles. |
| Myel, myelo | Gr. myelos | Marrow, pith; showing connection with the marrow or the spinal cord. |
| Myxa, myxo | Gr. myxa | Mucus; denoting some relation or resemblance to mucus. |
| Neo | Gr. neos | New. |
| Nephr, nephra, nephro | Gr. nephros | Kidney; showing relation to the kidneys. |
| Neu, neuro | Gr. neuron | A nerve; used to denote relation or resemblance to a nerve, nerves, or the nervous system. |
| Niter, nitro | Lat. nitrum | Niter; showing relation or resemblance to, or containing, nitrogen. |
| Non | Lat. | Not, no. |
| Nucleo | Lat. nucleus | A nucleus, a kernel belonging to, resembling, or derived from the nuclei of cells. |

| PREFIX | DERIVATION | MEANING |
|-------------------|--------------------------|---|
| Oculo | Lat. <i>ocularis</i> | The eye, denoting relation to the eye. |
| Odon | Gr. <i>odontos</i> | A tooth. |
| Omo | Gr. <i>omos</i> | Shoulder, denoting some relation to the shoulder. |
| Oō | Gr. <i>ōon</i> | An egg. |
| Oōphoron | Gr. | An ovary, showing some relation to an ovary. |
| Ortho | Gr. <i>orthos</i> | Straight, normal. |
| Os | Lat. | A mouth, a bone. |
| Oste, osteo | Gr. <i>osteon</i> | A bone. |
| Oxy | Gr. <i>oxys</i> | Sharp, acid, keen. |
| Pachy | Gr. <i>pachys</i> | Thick. |
| Pan | Gr. <i>pas</i> | All. |
| Para | Gr. | Beside, beyond, on the other side of. |
| Paro | Gr. | Near. |
| Per | Lat. | More, excessive, by. |
| Peri | Gr. | Around. |
| Pneu | Gr. <i>pneō</i> | Pertaining to the air, relating to the air or to the lungs. |
| Poly | Gr. | Much, many. |
| Proto | Gr. <i>protos</i> | First. |
| Pseud, pseudo | Gr. <i>pseudēs</i> | False. |
| Psycho | Gr. <i>psychē</i> | The soul, relating to the intelligence, the mind. |
| Pyo | Gr. <i>pyon</i> | Pus. |
| Retro | Lat. | Backward. |
| Sacchar | Lat. <i>saccharum</i> | Sugar. |
| Sacro | Lat. <i>sacred</i> | Sacrum, pertaining to the sacrum. |
| Salping, salpingo | Gr. <i>salpingx</i> | A tube, pertaining to a Fallopian tube. |
| Sarco | Gr. <i>sarkos</i> | Flesh. |
| Sclero | Gr. <i>skleros</i> | Hard, pertaining to the sclera. |
| Sub | Lat. | Under, near, almost. |
| Super | Lat. | Above, excess. |
| Supra | Lat. | Above, over. |
| Syn | Gr. | With, together, union, association. |
| Tetra | Gr. | Four. |
| Thio | Gr. | Sulphur, denoting composition with sulphur. |
| Thyro | Gr. | Denoting relation to the thyroid gland. |
| Trans | Lat. | Across. |
| Tri | Gr. and Lat. <i>tres</i> | Three. |
| Tropho | Gr. <i>trophos</i> | Relating to nutrition. |

| PREFIX | DERIVATION | MEANING |
|----------------|-----------------------|--|
| Urino | Lat. <i>urina</i> | Implying connection with the urine or urinary organs. |
| Vaso | Lat. <i>vas</i> | A vessel, a blood or lymph vessel. |
| Venter, ventro | Lat. <i>ventralis</i> | The belly; denoting connection with the abdomen or abdominal organs. |

SUFFIXES

| SUFFIX | DERIVATION | MEANING |
|---------------------------|--|---|
| Algesia Algia Ase | Gr. <i>algos</i> “ “ | Suffering, pain. “ “ This suffix is used for enzymes and is preceded by the name, or its root, of the substance upon which the enzyme acts or that of the nature of the chemical change which occurs in the substance. Thus the enzyme which acts upon lactose is termed <i>lactase</i> , the enzymes which cause oxidation are called <i>oxidases</i> , etc. |
| Cele Cyte | Gr. <i>kēlē</i> Gr. <i>kytos</i> | A tumor. A cell. |
| Dynia | Gr. | Pain. |
| Ectomy Esthesia | Gr. <i>ek</i> + <i>temno</i> Gr. <i>aisthēsis</i> | To cut out. Perception, sensation. |
| Form | Lat. <i>forma</i> | Form. |
| Gene, genesis, genetic | Gr. <i>gennaō</i> | To produce, origin, birth, production. |

| SUFFIX | DERIVATION | MEANING |
|----------------------|---------------|--|
| Gog, gogue | Gr. agō | To lead, to drive. |
| Kinesis | Gr. kinēsis | Motion. |
| Itis | Gr. and Lat. | Inflammation. |
| Lite, lithos | Gr. lithos | A stone, a calculus. |
| Lysis | Gr. lyo | Setting free; used to indicate disintegration. |
| Megalia or megaly | Gr. megas | Large, great, extreme. |
| Ode, oid | Gr. eidos | Form, shape. |
| Ology | Gr. logos | A discourse. |
| Oma | Gr. | A tumor. |
| Ostomosis | Gr. anastomoō | To furnish with a mouth, an opening, an outlet. |
| Ostomy | " " | |
| Otomy | Gr. temno | To cut. |
| Phobia | Gr. phobos | Fear. |
| Phylaxis | Gr. phylasso | To guard, to protect. |
| Plasm | Gr. plasso | To mold. |
| Plastic | Gr. plastos | Formed, molded; used to indicate restoration of lost tissue or remolding of badly formed features. |
| Plegia | Gr. plēgē | A stroke. |
| Rhea | Gr. rheo | To flow; used to indicate discharge. |
| Sclerosis | Gr. sklēros | Dryness, hardness. |
| Scop | Gr. skopēo | To see. |
| Trophic | Gr. atrophia | Wasting. |
| Tomy | Gr. temno | To cut. |

COMPARISON OF CENTIGRADE AND FAHRENHEIT THERMOMETRIC SCALES

| CENT. | FAHR. | CENT. | FAHR. | CENT. | FAHR. | CENT. | FAHR. |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 100 | = 212 | 93.3 | = 200 | 86.7 | = 188 | 80 | = 176 |
| 98.9 | = 210 | 92.2 | = 198 | 85.6 | = 186 | 78.9 | = 174 |
| 97.8 | = 208 | 91.1 | = 196 | 84.4 | = 184 | 77.8 | = 172 |
| 96.7 | = 206 | 90 | = 194 | 83.3 | = 182 | 76.7 | = 170 |
| 95.6 | = 204 | 88.9 | = 192 | 82.2 | = 180 | 75.6 | = 168 |
| 94.4 | = 202 | 87.8 | = 190 | 81.1 | = 178 | 74.4 | = 166 |

| CENT. FAHR. | CENT. FAHR. | CENT. FAHR. | CENT. FAHR. |
|-------------|-------------|-------------|-------------|
| 73.3 = 164 | 42.2 = 108 | 11.1 = 52 | 20 = 4 |
| 72.2 = 162 | 41.1 = 106 | 10 = 50 | 21.1 = 6 |
| 71.1 = 160 | 40 = 104 | 8.9 = 48 | 22.2 = 8 |
| 70 = 158 | 38.9 = 102 | 7.8 = 46 | 23.3 = 10 |
| 68.9 = 156 | 37.8 = 100 | 6.7 = 44 | 24.4 = 12 |
| 67.8 = 154 | 36.7 = 98 | 5.6 = 42 | 25.6 = 14 |
| 66.7 = 152 | 35.6 = 96 | 4.4 = 40 | 26.7 = 16 |
| 65.6 = 150 | 34.4 = 94 | 3.3 = 38 | 27.8 = 18 |
| 64.4 = 148 | 33.3 = 92 | 2.2 = 36 | 28.9 = 20 |
| 63.3 = 146 | 32.2 = 90 | 1.1 = 34 | 30 = 22 |
| 62.2 = 144 | 31.1 = 88 | 0 = 32 | 31.1 = 24 |
| 61.1 = 142 | 30 = 86 | 1.1 = 30 | 32.2 = 26 |
| 60 = 140 | 28.9 = 84 | 2.2 = 28 | 33.3 = 28 |
| 58.9 = 138 | 27.8 = 82 | 3.3 = 26 | 34.4 = 30 |
| 57.8 = 136 | 26.7 = 80 | 4.4 = 24 | 35.6 = 32 |
| 56.7 = 134 | 25.6 = 78 | 5.6 = 22 | 36.7 = 34 |
| 55.6 = 132 | 24.4 = 76 | 6.7 = 20 | 37.8 = 36 |
| 54.4 = 130 | 23.3 = 74 | 7.8 = 18 | 38.9 = 38 |
| 53.3 = 128 | 22.2 = 72 | 8.9 = 16 | 40 = 40 |
| 52.2 = 126 | 21.1 = 70 | 10 = 14 | 41.1 = 42 |
| 51.1 = 124 | 20 = 68 | 11.1 = 12 | 42.2 = 44 |
| 50 = 122 | 18.9 = 66 | 12.2 = 10 | 43.3 = 46 |
| 48.9 = 120 | 17.8 = 64 | 13.3 = 8 | 44.4 = 48 |
| 47.8 = 118 | 16.7 = 62 | 14.4 = 6 | 45.6 = 50 |
| 46.7 = 116 | 15.6 = 60 | 15.6 = 4 | 46.7 = 52 |
| 45.6 = 114 | 14.4 = 58 | 16.7 = 2 | 47.8 = 54 |
| 44.4 = 112 | 13.3 = 56 | 17.8 = 0 | 48.9 = 56 |
| 43.3 = 110 | 12.2 = 54 | 18.9 = 2 | |

METHOD OF CONVERTING ONE SCALE INTO ANOTHER

1. To change a Fahrenheit reading into centigrade: Subtract 32 from the given degree (the freezing point in the Fahrenheit scale being this much higher than in the centigrade scale), multiply the remainder by 5, and divide the result by 9. Thus:

$$212^{\circ} \text{F.} - 32 = 180 \times 5 = 900 \div 9 = 100^{\circ} \text{C.}$$

2. To change a centigrade reading into Fahrenheit: Multiply the given degree by 9, divide the result by 5, and add 32 to the remainder. Thus:

$$100^{\circ} \text{C.} \times 9 = 900 \div 5 = 180 + 32 = 212^{\circ} \text{F.}$$

TABLES OF WEIGHTS AND MEASURES

APOTHECARIES' WEIGHT

| Troy grains | Scruples | Drams | Troy ounces | Pound |
|-------------|----------|-------|-------------|-------|
| gr. | 20 = | ℥ 1 | | |
| 60 = | 3 = | 3 ℥ | | |
| 480 = | 24 = | 8 = | ℥ 1 | |
| 5760 = | 288 = | 96 = | 12 = | lb. 1 |

AVOIRDUPOIS WEIGHT

| <i>Troy grains</i> | | <i>Drams</i> | | <i>Ounces</i> | | <i>Pound</i> |
|--------------------|----------|--------------|-----|---------------|---|--------------|
| gr. | 27.34375 | = | dr. | 1 | | |
| | 437.5 | = | | 16 | = | oz. 1 |
| | 7000 | = | | 256 | = | 16 = lb. 1 |

TROY WEIGHT

| <i>Grains</i> | | <i>Pennyweights</i> | | <i>Ounces</i> | | <i>Pound</i> |
|---------------|---|---------------------|-----|---------------|-------|--------------|
| 24 | = | dwt. | 1 | | | |
| 80 | = | | 20 | = | oz. 1 | |
| 5760 | = | | 240 | = | 12 = | lb. 1 |

APOTHECARIES' MEASURE

| <i>Minims</i> | | <i>Fluidrams</i> | | <i>Fluidounces</i> | | <i>Pints</i> | | <i>Gallon</i> |
|---------------|---|------------------|---|--------------------|---|--------------|-----|---------------|
| m. 60 | = | f 3 | 1 | | | | | |
| 480 | = | 8 | = | f 3 | 1 | | | |
| 7680 | = | 128 | = | 16 | = | O 1 | | |
| 61440 | = | 1024 | = | 128 | = | 8 = | C 1 | |

IMPERIAL MEASURE

| <i>Minims</i> | | <i>Fluidrams</i> | | <i>Fluidounces</i> | | <i>Pints</i> | | <i>Gallon</i> |
|---------------|---|------------------|---|--------------------|---|--------------|---|---------------|
| 60 | = | 1 | | | | | | |
| 480 | = | 8 | = | 1 | | | | |
| 9600 | = | 160 | = | 20 | = | 1 | | |
| 76800 | = | 1280 | = | 160 | = | 8 = | 1 | |

LIQUID OR WINE MEASURE

| <i>Gills</i> | | <i>Pints</i> | | <i>Quarts</i> | | <i>Gallons</i> | | <i>Hogs-heads</i> | | <i>Pipes</i> | | <i>Tun</i> |
|--------------|---|--------------|---|---------------|---|----------------|---|-------------------|---|--------------|---|------------|
| 4 | = | 1 | | | | | | | | | | |
| 8 | = | 2 | = | 1 | | | | | | | | |
| 32 | = | 8 | = | 4 | = | 1 | | | | | | |
| 2016 | = | 504 | = | 252 | = | 63 | = | 1 | | | | |
| 4032 | = | 1008 | = | 504 | = | 126 | = | 2 | = | 1 | | |
| 8064 | = | 2016 | = | 1008 | = | 252 | = | 4 | = | 2 | = | 1 |

DRY MEASURE

| <i>Pints</i> | | <i>Quarts</i> | | <i>Gallons</i> | | <i>Pecks</i> | | <i>Bushels</i> | | <i>Quarter</i> |
|--------------|---|---------------|---|----------------|---|--------------|---|----------------|---|----------------|
| 2 | = | 1 | | | | | | | | |
| 8 | = | 4 | = | 1 | | | | | | |
| 16 | = | 8 | = | 2 | = | 1 | | | | |
| 64 | = | 32 | = | 8 | = | 4 | = | 1 | | |
| 512 | = | 256 | = | 64 | = | 32 | = | 8 | = | 1 |

LINEAR MEASURE

| <i>Inches</i> | <i>Feet</i> | <i>Yards</i> | <i>Fathoms</i> | <i>Perches</i> | <i>Furlongs</i> | <i>Mile</i> |
|---------------|-------------|--------------|----------------|----------------|-----------------|-------------|
| 12 = | 1 | | | | | |
| 36 = | 3 = | 1 | | | | |
| 72 = | 6 = | 2 = | 1 | | | |
| 198 = | 16.5 = | 5.5 = | 2.75 = | 1 | | |
| 7920 = | 660 = | 220 = | 110 = | 40 = | 1 | |
| 63360 = | 5280 = | 1760 = | 880 = | 320 = | 8 = | 1 |

SOLID MEASURE

| <i>Cubic Inches</i> | <i>Cubic Feet</i> | <i>Cubic Yard</i> |
|---------------------|-------------------|-------------------|
| 1728 | = 1 | |
| 46656 | = 27 | = 1 |

SQUARE MEASURE

| <i>Square Inches</i> | <i>Square Feet</i> | <i>Square Yards</i> | <i>Perches</i> | <i>Roods</i> | <i>Acre</i> |
|----------------------|--------------------|---------------------|----------------|--------------|-------------|
| 144 = | 1 | | | | |
| 1296 = | 9 = | 1 | | | |
| 39204 = | 272.25 = | 30.25 = | 1 | | |
| 1568160 = | 10890 = | 1210 = | 40 = | 1 | |
| 6272640 = | 43560 = | 4840 = | 160 = | 4 = | 1 |

METRIC LINEAR MEASURE

| | | | |
|------------|---|----------------|------------|
| Millimeter | = | .001 | of a meter |
| Centimeter | = | .01 | " " " |
| Decimeter | = | .1 | " " " |
| Meter | = | Principal unit | |
| Decameter | = | 10 | meters |
| Hectometer | = | 100 | " |
| Kilometer | = | 1000 | " |
| Myrimeter | = | 10000 | " |

METRIC LIQUID MEASURE

| | | | |
|------------|---|----------------|------------|
| Milliliter | = | .001 | of a liter |
| Centiliter | = | .01 | " " " |
| Deciliter | = | .1 | " " " |
| Liter | = | Principal unit | |
| Decaliter | = | 10 | liters |
| Hectoliter | = | 100 | " |
| Kiloliter | = | 1000 | " |
| Myrialiter | = | 10000 | " |

METRIC WEIGHTS

| | | | |
|-----------|---|--------|----------------|
| Milligram | = | .001 | of a gram |
| Centigram | = | .01 | " " " |
| Decigram | = | .1 | " " " |
| Gram | = | | Principal unit |
| Decagram | = | 10 | grams |
| Hectogram | = | 100 | " |
| Kilogram | = | 1000 | " |
| Myriogram | = | 10,000 | " |

COMPARATIVE VALUES OF APOTHECARIES' AND METRIC
FLUID MEASURES

| <i>Minims</i> | <i>Cubic Centi- meters</i> | <i>Minims</i> | <i>Cubic Centi- meters</i> | <i>Fluid Ounces</i> | <i>Cubic Centimeters</i> | <i>Fluid Ounces</i> | <i>Cubic Centimeters</i> | |
|---------------|------------------------------------|---------------|------------------------------------|-------------------------------|------------------------------|--------------------------------|------------------------------|--|
| 1 = 0.06 | 25 = 1.54 | | | 2 = 59.20 | | 21 = 621.00 | | |
| 2 = 0.12 | 30 = 1.90 | | | 3 = 89.00 | | 22 = 650.00 | | |
| 3 = 0.18 | 35 = 2.16 | | | 4 = 118.40 | | 23 = 680.00 | | |
| 4 = 0.24 | 40 = 2.50 | | | 5 = 148.00 | | 24 = 710.00 | | |
| 5 = 0.30 | 45 = 2.80 | | | 6 = 178.00 | | 25 = 740.00 | | |
| 6 = 0.36 | 50 = 3.08 | | | 7 = 207.00 | | 26 = 769.00 | | |
| 7 = 0.42 | 55 = 3.40 | | | 8 = 236.00 | | 27 = 798.50 | | |
| 8 = 0.50 | | | | 9 = 260.00 | | 28 = 828.00 | | |
| 9 = 0.55 | <i>Fluidrams</i> | | | 10 = 295.70 | | 29 = 858.00 | | |
| 10 = 0.60 | 1 = 3.75 | | | 11 = 325.25 | | 30 = 887.25 | | |
| 11 = 0.68 | 1½ = 4.65 | | | 12 = 355.00 | | 31 = 917.00 | | |
| 12 = 0.74 | 1¾ = 5.60 | | | 13 = 385.00 | | 32 or 1 quart } = 946.00 | | |
| 13 = 0.80 | 1½ = 6.51 | | | 14 = 414.00 | | | | |
| 14 = 0.85 | 2 = 7.50 | | | 15 = 444.00 | | | | |
| 15 = 0.92 | 3 = 11.25 | | | 16 or 1 pint } = 473.11 | | 48 = 1419.00 | | |
| 16 = 1.00 | 4 = 15.00 | | | | 17 = 503.00 | | 56 = 1655.00 | |
| 17 = 1.05 | 5 = 18.50 | | | 18 = 532.00 | | 64 = 1892.00 | | |
| 18 = 1.12 | 6 = 22.50 | | | 19 = 562.00 | | 72 = 2128.00 | | |
| 19 = 1.17 | 7 = 26.00 | | | 20 = 591.50 | | 80 = 2365.00 | | |
| 20 = 1.25 | <i>Fluidounce</i> | | | | | 96 = 2839.00 | | |
| | 1 = 30.001 | | | | | 112 = 3312.00 | | |
| | | | | | | 128 = 3785.00 | | |

COMPARATIVE VALUES OF STANDARD AND METRIC LINEAR
MEASURES

| <i>Inches</i> | <i>Centimeters</i> | <i>Inches</i> | <i>Centimeters</i> | <i>Inches</i> | <i>Millimeters</i> | <i>Inches</i> | <i>Millimeters</i> |
|---------------|--------------------|-----------------------|--------------------|---------------|--------------------|-----------------------|--------------------|
| 12 = 30.48 | 6 = 15.24 | $\frac{1}{2}$ = 1.00 | | | | $\frac{1}{2}$ = 15.85 | |
| 11 = 27.94 | 5 = 12.70 | $\frac{1}{4}$ = 2.11 | | | | $\frac{1}{4}$ = 16.92 | |
| 10 = 25.40 | 4 = 10.16 | $\frac{3}{8}$ = 3.17 | | | | $\frac{3}{8}$ = 19.05 | |
| 9 = 22.86 | 3 = 7.62 | $\frac{1}{2}$ = 6.35 | | | | $\frac{1}{2}$ = 21.15 | |
| 8 = 20.32 | 2 = 5.08 | $\frac{3}{4}$ = 8.46 | | | | $\frac{3}{4}$ = 22.19 | |
| 7 = 17.78 | 1 = 2.54 | $\frac{1}{2}$ = 12.70 | | | | $\frac{1}{2}$ = 23.28 | |

¹ More accurately 29.57 c.c.

COMPARATIVE VALUES OF APOTHECARIES' AND METRIC WEIGHTS

| Grains | Grams | Grains | Grams | Grains | Grams | Drams | Grams |
|---------------------------|-------|--------------|-------|-----------|-------|---------------|-------|
| $\frac{1}{100}$ = 0.00065 | | 2 = 0.130 | | 26 = 1.70 | | 3 = 11.65 | |
| $\frac{1}{80}$ = 0.00101 | | 3 = 0.195 | | 27 = 1.75 | | 4 = 15.50 | |
| $\frac{1}{60}$ = 0.00168 | | 4 = 0.260 | | 28 = 1.82 | | 5 = 19.40 | |
| $\frac{1}{50}$ = 0.00200 | | 5 = 0.324 | | 29 = 1.87 | | 6 = 23.30 | |
| $\frac{1}{40}$ = 0.00250 | | 6 = 0.400 | | 30 = 1.95 | | 7 = 27.20 | |
| $\frac{1}{30}$ = 0.00333 | | 7 = 0.460 | | 31 = 2.00 | | Ounces | |
| $\frac{1}{20}$ = 0.00500 | | 8 = 0.520 | | 32 = 2.10 | | 1 = 31.10 | |
| $\frac{1}{16}$ = 0.00625 | | 9 = 0.600 | | 33 = 2.16 | | 2 = 62.20 | |
| $\frac{1}{12}$ = 0.00833 | | 10 = 0.650 | | 34 = 2.20 | | 3 = 93.30 | |
| $\frac{1}{10}$ = 0.01000 | | 11 = 0.715 | | 35 = 2.25 | | 4 = 124.40 | |
| $\frac{1}{8}$ = 0.01250 | | 12 = 0.780 | | 36 = 2.30 | | 5 = 155.50 | |
| $\frac{1}{6}$ = 0.01667 | | 13 = 0.845 | | 37 = 2.40 | | 6 = 186.60 | |
| $\frac{1}{5}$ = 0.02000 | | 14 = 0.907 | | 38 = 2.47 | | 7 = 217.70 | |
| $\frac{1}{4}$ = 0.02500 | | 15 = 0.972 | | 39 = 2.55 | | 8 = 248.80 | |
| $\frac{1}{3}$ = 0.03333 | | 15.5 = 1.000 | | 40 = 2.60 | | 9 = 280.00 | |
| $\frac{1}{2}$ = 0.05000 | | 16 = 1.040 | | 42 = 2.73 | | 10 = 311.00 | |
| $\frac{1}{1}$ = 0.06667 | | 17 = 1.102 | | 44 = 2.80 | | 11 = 342.14 | |
| $\frac{1}{2}$ = 0.08333 | | 18 = 1.160 | | 48 = 3.00 | | 12 = 373.23 | |
| $\frac{1}{1}$ = 0.10000 | | 19 = 1.240 | | 50 = 3.25 | | 14 = 435.50 | |
| $\frac{1}{2}$ = 0.12500 | | 20 = 1.300 | | 52 = 3.40 | | 16 = 497.60 | |
| $\frac{1}{1}$ = 0.16200 | | 21 = 1.360 | | 56 = 3.65 | | 24 = 746.40 | |
| $\frac{1}{2}$ = 0.21600 | | 22 = 1.425 | | 58 = 3.75 | | 48 = 1492.80 | |
| $\frac{1}{1}$ = 0.32400 | | 23 = 1.460 | | Drams | | 100 = 3110.40 | |
| $\frac{1}{2}$ = 0.48600 | | 24 = 1.55 | | 1 = 3.90 | | | |
| $\frac{1}{1}$ = 0.65 | | 25 = 1.62 | | 2 = 7.80 | | | |

COMPARATIVE VALUES OF AVOIRDUPOIS AND METRIC WEIGHTS

| Avoir. Ounces | Grams | Avoir. Ounces | Grams | Avoir. Ounces | Grams | Avoir. Pounds | Grams |
|------------------------|-------|---------------|-------|---------------|-------|---------------|-------|
| $\frac{1}{16}$ = 1.772 | | 5 = 141.75 | | 13 = 368.54 | | 4 = 1814.37 | |
| $\frac{1}{8}$ = 3.544 | | 6 = 170.10 | | 14 = 396.90 | | 5 = 2267.96 | |
| $\frac{1}{4}$ = 7.088 | | 7 = 198.45 | | 15 = 425.25 | | 6 = 2727.55 | |
| $\frac{1}{2}$ = 14.175 | | 8 = 226.80 | | Avoir. | | 7 = 3175.14 | |
| 1 = 28.350 | | 9 = 255.15 | | Pounds. | | 8 = 3628.74 | |
| 2 = 56.700 | | 10 = 283.50 | | 1 = 453.60 | | 9 = 4082.33 | |
| 3 = 85.050 | | 11 = 311.84 | | 2 = 907.18 | | 10 = 4535.92 | |
| 4 = 113.400 | | 12 = 340.20 | | 2.2 = 1000.00 | | | |
| | | | | 3 = 1360.78 | | | |

APPROXIMATE VALUE OF DOMESTIC MEASURES

| | | | | |
|-------------------|---|-----------|----|---------------------------|
| 1 teaspoon | = | 5 c.c. | or | $\frac{1}{8}$ fluid ounce |
| 1 dessertspoon | = | 10 " | " | $\frac{1}{4}$ " " |
| 1 tablespoon | = | 15 " | " | $\frac{1}{2}$ " " |
| 1 teacup | = | 118 " | " | 4 " ounces |
| 1 large cup | = | 236 " | " | 8 " " |
| 1 tumbler | = | 178-236 " | " | 6-8 " " |
| 1 sherry glass | = | 30 " | " | 1 " ounce |
| 1 claret " | = | 118 " | " | 4 " ounces |
| 1 champagne glass | = | 133 " | " | $4\frac{1}{2}$ " " |

MEASURING SOLUTIONS

METHODS OF RECKONING THE AMOUNT OF DRUG
NECESSARY TO USE IN MAKING SOLUTIONS

HOW TO RECKON THE AMOUNT OF DRUG TO USE IN MAKING A SOLUTION OF A GIVEN PERCENTAGE.—(1) Using Apothecaries' Measure—According to the apothecaries' measure, there are 480 minims or grains in the ounce, but, to facilitate reckoning, in the making of solutions, the ounce is generally considered as having 500 minims or grains. Therefore, as 1 per cent. means one part in a hundred, to make an ounce of a 1 per cent. solution 5 minims or grains of the drug will be required, and to find out how much to use to make higher per cents. all that it is necessary to do is to multiply the required per cent. by 5. Thus:

To make a 2 per cent. solution 10 grains are required

To make a 5 per cent. solution 25 grains are required

To make a 10 per cent solution 50 grains are required

When it is required to make more than 1 ounce, multiply the amount of drug necessary to make 1 ounce by the number of ounces required; thus, to make 1 quart (32 ounces) of a 2 per cent. solution there will be needed 320 grains ($5 \times 2 = 10$ and $10 \times 32 = 320$). (2) Metric System—In the metric system the per cent. specified gives the amount of drug necessary to use for every 100 cubic centimeters (c. c.) of solution. Thus 1 gram is necessary for 100 c. c. of a 1 per cent. solution; 3 gram for 100 c. c. of a 3 per cent. solution, and so on. To find out how much of a drug to use to make larger quantities than 100 c. c. multiply the per cent. by the number of hundred cubic centimeters wanted; thus to make a liter (1000 c. c.) of a 5 per cent. solution, it will require 50 gram, because $5 \times 10 = 50$.

TABLE SHOWING THE AMOUNT OF DRUG TO USE IN MAKING ONE PINT OF SOLUTION, THE PINT BEING CONSIDERED AS CONTAINING 8000 GRAINS, OR 500 GRAINS TO THE OUNCE.

| <i>Per cent.</i> | <i>Which is Equivalent to</i> | <i>Amount of Drug</i> |
|------------------|-------------------------------|-----------------------|
| $\frac{1}{4}$ | I part in 400 | 20.00 grains |
| $\frac{1}{2}$ | I " " 200 | 40.00 " |
| I | I " " 100 | 80.00 " |
| 2 | I " " 50 | 160.00 " |
| 3 | I " " $33\frac{1}{3}$ | 240.00 " |
| 4 | I " " 25 | 320.00 " |
| 5 | I " " 20 | 400.00 " |
| 10 | I " " 10 | 800.00 " |
| 20 | I " " 5 | 1600.00 " |
| 25 | I " " 4 | 2000.00 " |

AVERAGE COMPOSITION OF COMMON AMERICAN FOOD PRODUCTS¹

| Food materials (as purchased) | Refuse | Water | Protein | Fat | Carbohy- drates | Ash | Fuel value per pound |
|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------------|
| | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Calo- ries</i> |
| ANIMAL FOOD | | | | | | | |
| Beef, fresh: | | | | | | | |
| Chuck ribs..... | 16.3 | 52.6 | 15.5 | 15.0 | ..... | 0.8 | 910 |
| Flank..... | 10.2 | 54.0 | 17.0 | 19.0 | ..... | .7 | 1,105 |
| Loin..... | 13.3 | 52.5 | 16.1 | 17.5 | ..... | .9 | 1,025 |
| Porterhouse steak..... | 12.7 | 52.4 | 19.1 | 17.9 | ..... | .8 | 1,100 |
| Sirloin steak..... | 12.8 | 54.0 | 16.5 | 16.1 | ..... | .9 | 975 |
| Neck..... | 27.6 | 45.9 | 14.5 | 11.9 | ..... | .7 | 1,165 |
| Ribs..... | 20.8 | 43.8 | 13.9 | 21.2 | ..... | .7 | 1,135 |
| Rib rolls..... | ..... | 63.9 | 19.3 | 16.7 | ..... | .9 | 1,055 |
| Round..... | 7.2 | 60.7 | 19.0 | 12.8 | ..... | 1.0 | 890 |
| Rump..... | 20.7 | 45.0 | 13.8 | 20.2 | ..... | .7 | 1,090 |
| Shank, fore..... | 36.9 | 42.9 | 12.8 | 7.3 | ..... | .6 | 545 |
| Shoulder and clod..... | 16.4 | 56.8 | 16.4 | 9.8 | ..... | .9 | 715 |
| Fore quarter..... | 18.7 | 49.1 | 14.5 | 17.5 | ..... | .7 | 995 |
| Hind quarter..... | 15.7 | 50.4 | 15.4 | 18.3 | ..... | .7 | 1,045 |

¹ Reprinted from *Farmers' Bulletin*, No. 142.

[To translate the percentages given in this table into grams, divide the figures representing the percentages by 100 (*i. e.*, move the decimal point two places toward the left) and to find the amount of heat (calories) that each food will yield multiply the number of grams of protein by 4, of fat by 9, and of carbohydrates by 4. To find the amount of protein, fat, etc., in one ounce, multiply the number of grams of protein, etc., by 28.35 (which is the number of grams in one ounce) and to find the amount in one pound, multiply by 453.60.]

AVERAGE COMPOSITION OF COMMON AMERICAN FOOD PRODUCTS—*Continued*

| Food materials (as purchased) | Refuse | Water | Protein | Fat | Carbohydrates | Ash | Fuel value per pound |
|---|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|
| | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Calories</i> |
| ANIMAL FOOD—<i>Continued</i> | | | | | | | |
| Beef, corned, canned, pickled, and dried: | | | | | | | |
| Corned beef..... | 8.4 | 49.2 | 14.3 | 23.8 | ..... | 4.6 | 1,245 |
| Tongue, pickled..... | 6.0 | 58.9 | 11.9 | 19.2 | ..... | 4.3 | 1,010 |
| Dried, salted, and smoked.. | 4.7 | 53.7 | 26.4 | 6.9 | ..... | 8.9 | 790 |
| Canned boiled beef..... | ..... | 51.8 | 25.5 | 22.5 | ..... | 1.3 | 1,410 |
| Canned corned beef..... | ..... | 51.8 | 26.3 | 18.7 | ..... | 4.0 | 1,270 |
| Veal: | | | | | | | |
| Breast..... | 21.3 | 52.0 | 15.4 | 11.0 | ..... | .8 | 745 |
| Leg..... | 14.2 | 60.1 | 15.5 | 7.9 | ..... | .9 | 625 |
| Leg cutlets..... | 3.4 | 68.3 | 20.1 | 7.5 | ..... | 1.0 | 695 |
| Fore quarter..... | 24.5 | 54.2 | 15.1 | 6.0 | ..... | .7 | 535 |
| Hind quarter..... | 20.7 | 56.2 | 16.2 | 6.6 | ..... | .8 | 580 |
| Mutton: | | | | | | | |
| Flank..... | 9.9 | 39.0 | 13.8 | 36.9 | ..... | .6 | 1,770 |
| Leg, hind..... | 18.4 | 51.2 | 15.1 | 14.7 | ..... | .8 | 890 |
| Loin chops..... | 16.0 | 42.0 | 13.5 | 28.3 | ..... | .7 | 1,415 |
| Fore quarter..... | 21.2 | 41.6 | 12.3 | 24.5 | ..... | .7 | 1,235 |
| Hind quarter, without tallow | 17.2 | 45.4 | 13.8 | 23.2 | ..... | .7 | 1,210 |
| Lamb: | | | | | | | |
| Breast.... | 19.1 | 45.5 | 15.4 | 19.1 | ..... | .8 | 1,075 |
| Leg, hind..... | 17.4 | 52.9 | 15.9 | 13.6 | ..... | .9 | 860 |
| Pork, fresh: | | | | | | | |
| Ham..... | 10.7 | 48.0 | 13.5 | 25.9 | ..... | .8 | 1,320 |
| Loin chops.. | 19.7 | 41.8 | 13.4 | 24.2 | ..... | .8 | 1,245 |
| Shoulder..... | 12.4 | 44.9 | 12.0 | 29.8 | ..... | .7 | 1,450 |
| Tenderloin..... | ..... | 66.5 | 18.9 | 13.0 | ..... | 1.0 | 895 |
| Pork, salted, cured, and pickled: | | | | | | | |
| Ham, smoked..... | 13.6 | 34.8 | 14.2 | 33.4 | ..... | 4.2 | 1,635 |
| Shoulder, smoked..... | 18.2 | 36.8 | 13.0 | 26.6 | ..... | 5.5 | 1,335 |
| Salt pork..... | ..... | 7.9 | 1.9 | 86.2 | ..... | 3.9 | 3,555 |
| Bacon, smoked..... | 7.7 | 17.4 | 9.1 | 62.2 | ..... | 4.1 | 2,715 |
| Sausage: | | | | | | | |
| Bologna..... | 3.3 | 55.2 | 18.2 | 19.7 | ..... | 3.8 | 1,155 |
| Pork..... | ..... | 39.8 | 13.0 | 44.2 | 1.1 | 2.2 | 2,075 |
| Frankfort..... | ..... | 57.2 | 19.6 | 18.6 | 1.1 | 3.4 | 1,155 |
| Soups: | | | | | | | |
| Celery, cream of..... | ..... | 88.6 | 2.1 | 2.8 | 5.0 | 1.5 | 235 |
| Beef..... | ..... | 92.9 | 4.4 | .4 | 1.1 | 1.2 | 120 |
| Meat stew..... | ..... | 84.5 | 4.6 | 4.3 | 5.5 | 1.1 | 365 |
| Tomato..... | ..... | 90.0 | 1.8 | 1.1 | 5.6 | 1.5 | 185 |
| Poultry: | | | | | | | |
| Chicken, broilers..... | 41.6 | 43.7 | 12.8 | 1.4 | ..... | .7 | 305 |
| Fowls..... | 25.9 | 47.1 | 13.7 | 12.3 | ..... | .7 | 765 |
| Goose..... | 17.6 | 38.5 | 13.4 | 29.8 | ..... | .7 | 1,475 |
| Turkey..... | 22.7 | 42.4 | 16.1 | 18.4 | ..... | .8 | 1,060 |
| Fish: | | | | | | | |
| Cod, dressed..... | 29.9 | 58.5 | 11.1 | .2 | ..... | .8 | 220 |
| Halibut, steaks or sections.. | 17.7 | 61.9 | 15.3 | 4.4 | ..... | .9 | 475 |
| Mackerel, whole..... | 44.7 | 40.4 | 10.2 | 4.2 | ..... | .7 | 370 |
| Perch, yellow, dressed..... | 35.1 | 50.7 | 12.8 | .7 | ..... | .9 | 275 |
| Shad, whole..... | 50.1 | 35.2 | 9.4 | 4.8 | ..... | .7 | 380 |
| Shad, roe..... | ..... | 71.2 | 20.9 | 3.8 | 2.6 | 1.5 | 600 |
| Fish, preserved: | | | | | | | |
| Cod, salt..... | 24.9 | 40.2 | 16.0 | .4 | ..... | 18.5 | 325 |
| Herring, smoked..... | 44.4 | 19.2 | 20.5 | 8.8 | ..... | 7.4 | 755 |

AVERAGE COMPOSITION OF COMMON AMERICAN FOOD PRODUCTS—Continued

| Food materials (as purchased) | Refuse | Water | Protein | Fat | Carbohydrates | Ash | Fuel value per pound |
|------------------------------------|-----------|-----------|-----------|-----------|---------------|-----------|----------------------|
| | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Calories |
| ANIMAL FOOD—Continued | | | | | | | |
| Fish, canned: | | | | | | | |
| Salmon..... | | 63.5 | 21.8 | 12.1 | ..... | 2.6 | 915 |
| Sardines..... | 45.0 | 53.6 | 23.7 | 12.1 | ..... | 5.3 | 950 |
| Shellfish: | | | | | | | |
| Oysters, "solids"..... | | 88.3 | 6.0 | 1.3 | 3.3 | 1.1 | 225 |
| Clams..... | | 80.8 | 10.6 | 1.1 | 5.2 | 2.3 | 340 |
| Crabs..... | 52.4 | 36.7 | 7.9 | .9 | .6 | 1.5 | 200 |
| Lobsters..... | 61.7 | 30.7 | 5.9 | .7 | .2 | .8 | 145 |
| Eggs: Hens' eggs..... | 511.2 | 65.5 | 13.1 | 9.3 | ..... | 0.9 | 635 |
| Dairy products, etc: | | | | | | | |
| Butter..... | | 11.0 | 1.0 | 85.0 | ..... | 3.0 | 3,410 |
| Whole milk..... | | 87.0 | 3.3 | 4.0 | 5.0 | .7 | 310 |
| Skim milk..... | | 90.5 | 3.4 | .3 | 5.1 | .7 | 165 |
| Buttermilk..... | | 91.0 | 3.0 | .5 | 4.8 | .7 | 160 |
| Condensed milk..... | | 26.9 | 8.8 | 8.3 | 54.1 | 1.9 | 1,430 |
| Cream..... | | 74.0 | 2.5 | 18.5 | 4.5 | .5 | 865 |
| Cheese, Cheddar..... | | 27.4 | 27.7 | 36.8 | 4.1 | 4.0 | 2,075 |
| Cheese, full cream..... | | 34.2 | 25.9 | 33.7 | 2.4 | 3.8 | 1,885 |
| VEGETABLE FOOD | | | | | | | |
| Flour, meal, etc.: | | | | | | | |
| Entire-wheat flour..... | | 11.4 | 13.8 | 1.9 | 71.9 | 1.0 | 1,650 |
| Graham flour..... | | 11.3 | 13.3 | 2.2 | 71.4 | 1.8 | 1,645 |
| Wheat flour patent roller process— | | | | | | | |
| High-grade and medium | | 12.0 | 11.4 | 1.0 | 75.1 | .5 | 1,635 |
| Low grade..... | | 12.0 | 14.0 | 1.9 | 71.2 | .9 | 1,640 |
| Macaroni, vermicelli, etc..... | | 10.3 | 13.4 | .9 | 74.1 | 1.3 | 1,645 |
| Wheat breakfast food..... | | 9.6 | 12.1 | 1.8 | 75.2 | 1.3 | 1,680 |
| Buckwheat flour..... | | 13.6 | 6.4 | 1.2 | 77.9 | .9 | 1,605 |
| Rye flour..... | | 12.9 | 6.8 | .9 | 78.7 | .7 | 1,620 |
| Corn meal..... | | 12.5 | 9.2 | 1.9 | 75.4 | 1.0 | 1,635 |
| Oat breakfast food..... | | 7.7 | 16.7 | 7.3 | 66.2 | 2.1 | 1,800 |
| Rice..... | | 12.3 | 8.0 | .3 | 79.0 | .4 | 1,620 |
| Tapioca..... | | 11.4 | .4 | .1 | 88.0 | .1 | 1,650 |
| Starch..... | | | | | 90.0 | ..... | 1,675 |
| Bread, pastry, etc. | | | | | | | |
| White bread..... | | 35.3 | 9.2 | 1.3 | 53.1 | 1.1 | 1,200 |
| Brown bread..... | | 43.6 | 5.4 | 1.8 | 47.1 | 2.1 | 1,040 |
| Graham bread..... | | 35.7 | 8.9 | 1.8 | 52.1 | 1.5 | 1,195 |
| Whole-wheat bread..... | | 38.4 | 9.7 | .9 | 49.7 | 1.3 | 1,130 |
| Rye bread..... | | 35.7 | 9.0 | .6 | 53.2 | 1.5 | 1,170 |
| Cake..... | | 19.9 | 6.3 | 9.0 | 63.3 | 1.5 | 1,630 |
| Cream crackers..... | | 6.8 | 9.7 | 12.1 | 69.7 | 1.7 | 1,925 |
| Oyster crackers..... | | 4.8 | 11.3 | 10.5 | 70.5 | 2.9 | 1,910 |
| Soda crackers..... | | 5.9 | 9.8 | 9.1 | 73.1 | 2.1 | 1,875 |
| Sugars, etc.: | | | | | | | |
| Molasses..... | | | | | 70.0 | ..... | 1,225 |
| Candy c..... | | | | | 96.0 | ..... | 1,680 |
| Honey..... | | | | | 81.0 | ..... | 1,420 |
| Sugar granulated..... | | | | | 100.0 | ..... | 1,750 |
| Maple sirup..... | | | | | 71.4 | ..... | 1,250 |

a Refuse, oil. b Refuse, shell. c Plain confectionery not containing nuts, fruit, or chocolate.

AVERAGE COMPOSITION OF COMMON AMERICAN FOOD PRODUCTS—*Continued*

| Food materials (as purchased) | Refuse | Water | Protein | Fat | Carbo- hydrates | Ash | Fuel value per pound |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------------|
| | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Calo- ries</i> |
| VEGETABLE FOOD—Continued | | | | | | | |
| Vegetables <i>a</i> : | | | | | | | |
| Beans dried..... | | 12.6 | 22.5 | 1.8 | 59.6 | 3.5 | 1,530 |
| Beans, Lima, shelled..... | | 68.5 | 7.1 | .7 | 22.0 | 1.7 | 540 |
| Beans, string..... | 7.0 | 83.0 | 2.1 | .3 | 6.9 | .7 | 170 |
| Beets..... | 20.0 | 70.0 | 1.1 | .1 | 7.7 | .9 | 160 |
| Cabbage..... | 15.0 | 77.7 | 1.4 | .2 | 4.8 | .9 | 115 |
| Celery..... | 20.0 | 75.6 | .9 | .1 | 2.6 | .8 | 65 |
| Corn, green (sweet), edible portion..... | | 75.4 | 3.1 | 1.1 | 19.7 | .7 | 440 |
| Cucumbers..... | 15.0 | 81.1 | .7 | .2 | 2.6 | .4 | 65 |
| Lettuce..... | 15.0 | 80.5 | 1.0 | .2 | 2.5 | .8 | 65 |
| Mushrooms..... | | 88.1 | 3.5 | .4 | 6.8 | 1.2 | 185 |
| Onions..... | 10.0 | 78.9 | 1.4 | .3 | 8.9 | .5 | 190 |
| Parsnips..... | 20.0 | 66.4 | 1.3 | .4 | 10.8 | 1.1 | 230 |
| Peas (<i>Pisum sativum</i>), dried..... | | 9.5 | 24.6 | 1.0 | 62.0 | 2.9 | 1,565 |
| Peas (<i>Pisum sativum</i>), shelled..... | | 74.6 | 7.0 | .5 | 16.9 | 1.0 | 440 |
| Cowpeas, dried..... | | 13.0 | 21.4 | 1.4 | 60.8 | 3.4 | 1,505 |
| Potatoes..... | 20.0 | 62.6 | 1.8 | .1 | 14.7 | .8 | 295 |
| Rhubarb..... | 40.0 | 56.6 | .4 | .4 | 2.2 | .4 | 60 |
| Sweet potatoes..... | 20.0 | 55.2 | 1.4 | .6 | 21.9 | .9 | 440 |
| Spinach..... | | 92.3 | 2.1 | .3 | 3.2 | 2.1 | 95 |
| Squash..... | 50.0 | 44.2 | .7 | .2 | 4.5 | .4 | 100 |
| Tomatoes..... | | 94.3 | .9 | .4 | 3.9 | .5 | 100 |
| Turnips..... | 30.0 | 62.7 | .9 | .1 | 5.7 | .6 | 120 |
| Vegetables, canned: | | | | | | | |
| Baked beans..... | | 68.9 | 6.9 | 2.5 | 19.6 | 2.1 | 555 |
| Peas (<i>Pisum sativum</i>) green..... | | 85.3 | 3.6 | .2 | 9.8 | 1.1 | 235 |
| Corn, green..... | | 76.1 | 3.8 | 1.2 | 19.0 | .9 | 430 |
| Succotash..... | | 75.9 | 3.6 | 1.0 | 18.6 | .9 | 425 |
| Tomatoes..... | | 94.0 | 1.2 | .2 | 4.0 | .6 | 95 |
| Fruits, berries, etc., fresh <i>b</i> : | | | | | | | |
| Apples..... | 25.0 | 63.3 | 0.3 | 0.3 | 10.8 | 0.3 | 190 |
| Bananas..... | 35.0 | 48.9 | .8 | .4 | 14.3 | .6 | 260 |
| Grapes..... | 25.0 | 58.0 | 1.0 | 1.2 | 14.4 | .4 | 295 |
| Lemons..... | 30.0 | 62.5 | .7 | .5 | 5.9 | .4 | 125 |
| Muskmelons..... | 50.0 | 44.8 | .3 | ..... | 4.6 | .3 | 80 |
| Oranges..... | 27.0 | 63.4 | .6 | .1 | 8.5 | .4 | 150 |
| Pears..... | 10.0 | 76.0 | .5 | .4 | 12.7 | .4 | 230 |
| Persimmons, edible portion..... | | 66.1 | .8 | .7 | 31.5 | .9 | 550 |
| Raspberries..... | | 85.8 | 1.0 | ..... | 12.6 | .6 | 220 |

a Such vegetables as potatoes, squash, beets, etc., have a certain amount of inedible material, skin, seeds, etc. The amount varies with the method of preparing the vegetables, and cannot be accurately estimated. The figures given for refuse of vegetables, fruits, etc., are assumed to represent approximately the amount of refuse in these foods as ordinarily prepared.

b Fruits contain a certain proportion of inedible materials, as skin, seeds, etc., which are properly classed as refuse. In some fruits, as oranges and prunes, the amount rejected in eating is practically the same as refuse. In others, as apples and pears, more or less of the edible material is ordinarily rejected with the skin and seeds and other inedible portions. The edible material which is thus thrown away, and should properly be classed with the waste, is here classed with the refuse. The figures for refuse here given represent, as nearly as can be ascertained, the quantities ordinarily rejected.

AVERAGE COMPOSITION OF COMMON AMERICAN FOOD PRODUCTS—Continued

| Food materials as (purchased) | Refuse | Water | Protein | Fat | Carbo- hydrates | Ash | Fuel value per pound |
|---|--------------|--------------|--------------|--------------|--------------------|--------------|-------------------------------|
| VEGETABLE FOOD—Continued | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Calo- ries |
| Fruits, berries, etc., fresh <i>a</i> : | | | | | | | |
| Strawberries..... | 5.0 | 85.9 | .9 | .6 | 7.0 | .6 | 150 |
| Watermelons..... | 59.4 | 37.5 | .2 | .1 | 2.7 | .1 | 50 |
| Fruits, dried: | | | | | | | |
| Apples..... | | 28.1 | 1.6 | 2.2 | 66.1 | 2.0 | 1,185 |
| Apricots..... | | 29.4 | 4.7 | 1.0 | 62.5 | 2.4 | 1,125 |
| Dates..... | 10.0 | 13.8 | 1.9 | 2.5 | 70.6 | 1.2 | 1,275 |
| Figs..... | | 18.8 | 4.3 | .3 | 74.2 | 2.4 | 1,280 |
| Raisins..... | 10.0 | 13.1 | 2.3 | 3.0 | 68.5 | 3.1 | 1,265 |
| Nuts: | | | | | | | |
| Almonds..... | 45.0 | 2.7 | 11.5 | 30.2 | 9.5 | 1.1 | 1,515 |
| Brazil nuts..... | 49.6 | 2.6 | 8.6 | 33.7 | 3.5 | 2.0 | 1,485 |
| Butternuts..... | 86.4 | .6 | 3.8 | 8.3 | .5 | .4 | 385 |
| Chestnuts, fresh..... | 16.0 | 37.8 | 5.2 | 4.5 | 35.4 | 1.1 | 915 |
| Chestnuts, dried..... | 24.0 | 4.5 | 8.1 | 5.3 | 56.4 | 1.7 | 1,385 |
| Cocoanuts..... | 648.8 | 7.2 | 2.9 | 25.9 | 14.3 | .9 | 1,295 |
| Cocanut, prepared..... | | 3.5 | 6.3 | 57.4 | 31.5 | 1.3 | 2,865 |
| Filberts..... | 52.1 | 1.8 | 7.5 | 31.3 | 6.2 | 1.1 | 1,430 |
| Hickory nuts..... | 62.2 | 1.4 | 5.8 | 25.5 | 4.3 | .8 | 1,145 |
| Pecans, polished..... | 53.2 | 1.4 | 5.2 | 33.3 | 6.2 | .7 | 1,465 |
| Peanuts..... | 24.5 | 6.9 | 19.5 | 29.1 | 18.5 | 1.5 | 1,775 |
| Piñon (<i>Pinus edulis</i>)..... | 40.6 | 2.0 | 8.7 | 36.8 | 10.2 | 1.7 | 1,730 |
| Walnuts, black..... | 74.1 | .6 | 7.2 | 14.6 | 3.0 | .5 | 730 |
| Walnuts, English..... | 58.1 | 1.0 | 6.9 | 26.6 | 6.8 | .6 | 1,250 |
| Miscellaneous: | | | | | | | |
| Chocolate..... | | 5.9 | 12.9 | 48.7 | 30.3 | 2.2 | 2,625 |
| Cocoa, powdered..... | | 4.6 | 21.6 | 28.9 | 37.7 | 7.2 | 2,160 |
| Cereal coffee, infusion (1 part boiled in 20 parts water) <i>c</i> | | 98.2 | .2 | | 1.4 | .2 | 30 |

a Ibid.*b* Milk and shell.

c The average of five analyses of cereal coffee grain is: Water 6.2, protein 13.3, fat 3.4, carbohydrates 72.6, and ash 4.5 per cent. Only a portion of the nutrients, however, enters into the infusion. The average in the table represents the available nutrients in the beverage. Infusions of genuine coffee and of tea like the above contain practically no nutrients.

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